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Telephony

The Journal of the Telephone Industry

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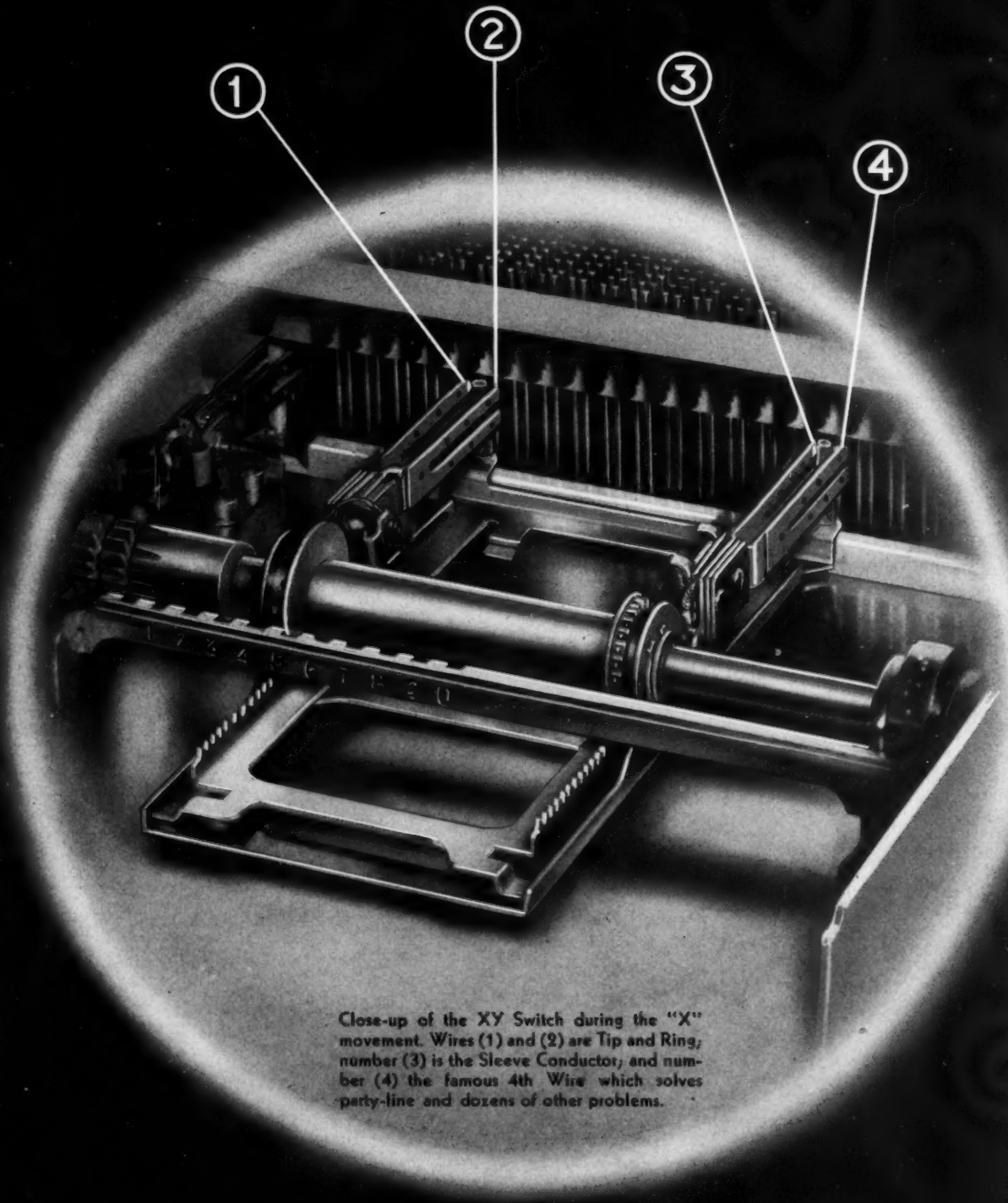
STROMBERG-CARL



Close-up of the XY Switch during the "X" movement. Wires (1) and (2) are Tip and Ring; number (3) is the Sleeve Conductor; and number (4) the famous 4th Wire which solves party-line and dozens of other problems.

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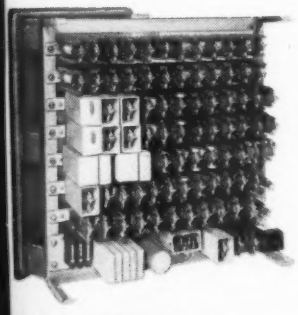

Federal's 6E PABX, with cover removed and hinged relay gate swung open.

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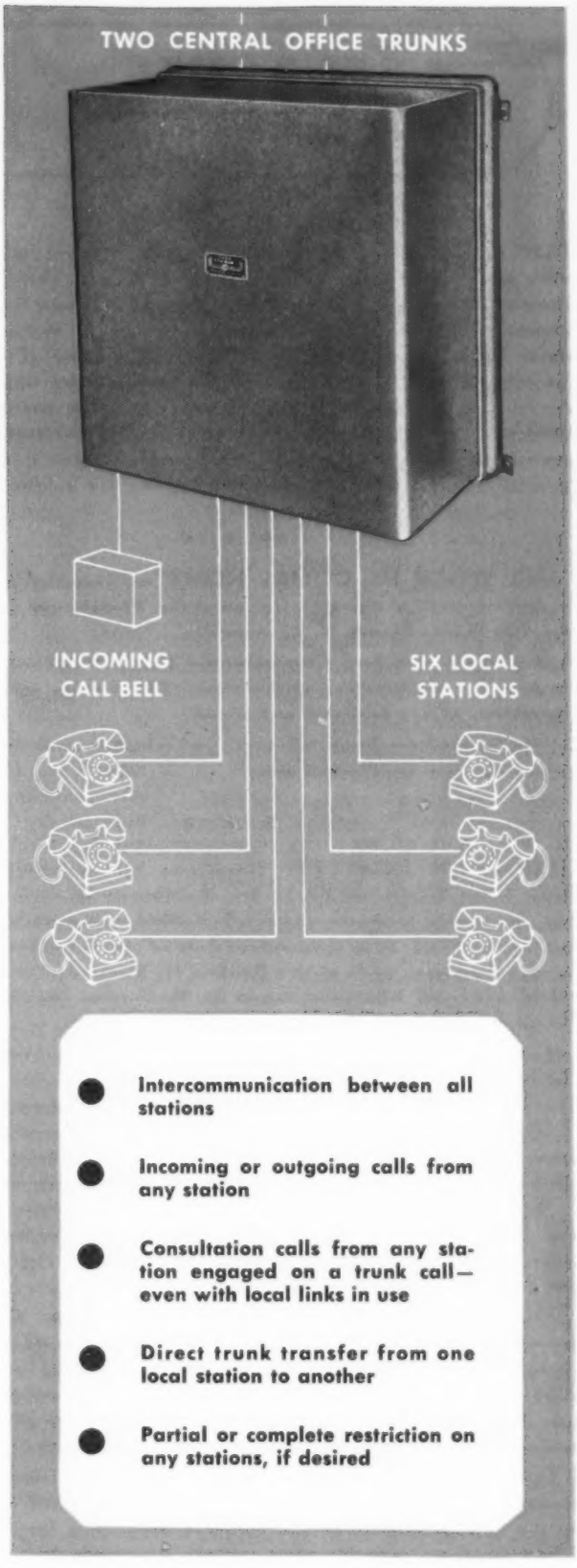

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FLASHES AND PLUGS

SANTA CLAUS CAME EARLY. TELEPHONY was happy to learn in a recent letter from Eugene H. Merrill, chief of the communications group, United States Office of Military Government in Germany, that it had contributed indirectly to the enjoyment of about 560 children in Berlin. Mr. Merrill, author of an article on the rehabilitation of communications in Germany which appeared in the Sept. 4 issue of TELEPHONY, used his payment for the article to purchase 5-cent chocolate bars, an extremely rare item among the German people. Their distribution put a sparkle in the eyes of the small fry who hadn't seen any for a long time.

• • •

"AND WHEN HE COMES HOME"—"Has the jury returned its verdict yet?" a woman telephoned the Westchester County Courthouse in White Plains, N. Y., recently.

Supreme Court Jury Commissioner Ralph Mumford replied that no jury was deliberating at the time. The woman spluttered a denunciation of her husband and added:

"He hasn't been home all night and telephoned to tell me he was locked up on a deadlocked jury."

• • •

OPERATION DELIVERY. Have you ever wondered just how those bulky telephone books are distributed in such an efficient, and apparently hitchless, manner? Behind that seemingly effortless delivery method is a tremendous job of organization by the distributing agency, such as the Reuben H. Donnelly Corp., which recently delivered telephone books in Manhattan for the New York Telephone Co.

Every sector, every street and house where a telephone is installed is mapped; every delivery is timed down to the split second. The time it takes a foreman to fill a bag (1.3 minutes), the time it takes to open bundles and jot details of a carrier's trip (0.5 minutes) is recorded. Density studies are made showing the number of stops and books to be delivered on each side of each block in the city and how long they will take. Consideration is given one-way streets and topography and when avenues are made one-way maps and timetables must be revamped not only for those streets but for others.

There are day and night delivery problems also. Deliveries are not made in Greenwich Village early in the morning "for obvious reasons"; they are not made except in the morning in Washington Market because the fruit and vegetable men are around at 5 or 6 a.m. but not at 2 p.m. In Radio City the books are planted in subbasements and carriers work their way up through the building.

Trucks average in Manhattan twenty-two men and two supervisors. At any hour of the day the company can tell where one of its trucks is or should be. A fire or a death in a family will upset the time chart, but frequent reports are made by telephone, of course.

The old books, 10,000 tons of them a year in the metropolitan area, are contracted for by competitive bidding every six months. They are converted into paper products. Currently the old books are worth $10 a ton.

In connection with old books the telephone company advises subscribers to remove all notes, letters and folding money. Its slogan might well be "Shake well before returning," in that old telephone books have been found to be receptacles for ties that were being pressed, bonds, the deed to the house—and love letters.

Telephony

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IN THE NATION'S CAPITAL

BY FRANCIS X. WELCH
WASHINGTON EDITOR

Taft-Hartley Act unlikely to be repealed in entirety. . . . "Closed shop" provision probably to go, however. . . . New Jersey commission establishes precedent by permitting telephone workers union to act as intervenor in Bell rate case. . . .

A GOOD deal of speculation is floating around the country to the effect that the next Congress is going to go after business with a shotgun, and that anyone with money in the bank had better start worrying. The recent stock market performance of utility common shares indicates that a lot of people are worrying along these lines. What may actually be happening here, however, is too strong a reaction to President Truman's "miracle" victory. Some of the very people who were so sure of Governor Dewey's election that they were picking his cabinet shortly before Nov. 2, are now talking like prophets of doom.

Even such an authoritative source as the respectable and sagacious *New York Times* contains the following post-election appraisal of the 81st Congress:

". . . When the new Congress convenes in January, many of the 'old faces' of the 80th Congress will have departed—particularly from among the 'isolationists' and 'reactionaries.' In the House alone more than 50 supporters of the Taft-Hartley Act were defeated. There will be about 150 'new faces'—most of them 'liberal' and 'progressive.'

"*Senate.* Of the 14 new Democratic Senators, nine most likely will go along with Truman on the liberal side of practically all issues.

"*House.* The 77 new Democrats are nearly all expected to be liberals, since they campaigned on the liberal side of issues."

Some of these inferences appear to this writer (now that we are getting our second breath following the election) to be a bit too strong. It is true that over 50 supporters of the Taft-Hartley Act were defeated in the House. But it was also true that 20 Republicans who voted against the Taft-Hartley Act were also defeated. Furthermore, not a single Democrat who voted to override President Truman's veto of the Taft-Hartley Act — and there were quite a few of them—was defeated. In other words the voters were voting along *party* lines, without too much regard for the labor act.

If the administration is going to interpret the election, therefore, as a mandate to repeal such important labor legislation, it might find a surprising amount of opposition in Congress, even within its own party. Of course, this doesn't mean that labor leaders will not try to make such an interpretation of the election stick. Jack Kroll, director of the CIO Political Action Committee, interprets the re-election of President Truman as a popular mandate for the repeal of the Taft-Hartley Act.

It is true that the repeal of the labor act was a plank in the Democratic platform. But it does not follow that the plurality voting for Truman unanimously endorsed every plank of the party platform. It is demonstrable that thousands who voted for Truman could not have even *named* a plank in the platform. They voted for Truman because they liked him, or perhaps because they didn't like any other candidate.

Mr. Kroll, of course, has a right to campaign for the repeal of the Taft-Hartley Act, but it might be wise for him, and the legislators toward whom his campaign will be directed, to think twice before undertaking any blanket uprooting of existing labor legislation.

The Taft-Hartley Act was adopted, over a presidential veto, to meet a public need. It had the major aim of curbing excesses which were being practiced by a large segment of labor, and by many labor leaders, to the detriment of the general welfare. The demand for the legislation did not follow party lines. Neither did the voting in Congress.

The Act was a moderate piece of legislation — more moderate, surely, than the plan President Truman had advanced earlier to deal with the railroad strikers. Since its enactment, the Taft-Hartley Act has served to curb many of the excesses of labor. It served as the instrument which enabled President Truman to bring John L. Lewis into line when his coal strike was jeopardizing the nation's economy. It would have been hard, at that time, to find more than a handful of members of either major party who would willingly have scrapped the law.

The *San Francisco Chronicle* stated editorially in discussing this situation:

"We believe that a majority of Americans, regardless of how they voted, would be reluctant to turn loose the kind of desperate, irresponsible forces that were ripping the nation apart for the first 18 months after the war. We believe that most responsible labor leaders would join in that reluctance.

"Is that what Kroll and his followers want in the repeal of the Taft-Hartley Act—*carte blanche* for labor to go its own way heedless of the rights of the rest of the community? That question should be asked—and answered—before Congress proceeds to wipe out the labor law. For it is certain that if the present moderate law should be repealed, and labor once more slapped its suffocating squeeze on the economy, Congress would swiftly come up with something a good deal more drastic than the Taft-Hartley Act. We consider, therefore, that it is the obligation of responsible labor leaders to discover to what extent the less stable unions have grown up to their responsibilities. We suggest that one earmark of maturity would be a union's recognition of the public's right to protect itself."

Changes in Faces

Getting around now to all those who are going to be missing in the 81st Congress, it is an interesting thing to observe that a good many old faces will still be doing business at the same committee stands. Take, for example, the Senate Interstate & Foreign Commerce Committee, which handles all regulatory legislation, including matters affecting the Federal Communications Commission. Chairman of this group will be Senator Edwin Johnson (D.—Colo.), who votes about as often with the Republicans as he does with the Demo-

crats. He is generally labeled as a "reasonably conservative Senator." Other Democrats on the committee are more or less middle-of-the-roaders, with these possible exceptions to the left: Magnuson of Washington; McFarland of Arizona; Myers of Pennsylvania; McMahon of Connecticut. A new member is likely to be Senator-elect Virgil Chapman of Kentucky, who is generally regarded as fairly conservative.

Over on the House side, it now appears that the chairmanship will go to another reasonably conservative member, Representative Bulwinkle (D. — N. C.), who sponsored legislation in the 80th Congress to permit railroad companies to be exempt from double regulation in the form of anti-trust proceedings. Representative Bulwinkle is ranked, in seniority, by Representative Crosser of Ohio. But Crosser is not in too good health and is reported likely to waive his right of becoming chairman of this active and important committee.

Holdover Democrats, in addition to Bulwinkle and Crosser, are Beckworth of Texas, a natural gas man; Priest of Tennessee; Harris of Arkansas (who is keeping close watch on the REA); Sadowski of Michigan, and Rogers of Florida. And so it goes with other committees. Now, let us take a look at the newcomers in the Senate. There does not seem to be any particular mass invasion of wildmen. Indeed, a couple of the Republican holdovers are about as leftishly inclined as many of the incoming Democrats.

The following new Senators are in the "New Deal" category: Anderson of New Mexico; Kefauver of Tennessee; Johnson of Texas; and Hunt of Wyoming. Senator-elect Gillette of Iowa is certainly no New Dealer and will be found voting with the Republicans occasionally on party issue votes, as he has done in the past. Senators-elect Kerr of Oklahoma, Long of Louisiana, and Frear of Delaware are middle-of-the-roaders who will probably give business a break on important legislative issues.

So, summing up the Senate (which is easier to do, since the House committee assignments are still so indefinite) it is now possible to say that the forty-two Republicans and the fifty-four Democrats *contain a solid core of independent thinking which will stand as a barrier towards any punitive type of legislation designed to cripple business or socialize industry.* The coalition of southern Democrats and Republicans who will vote together on anti-business questions amounts to considerable more than a majority of the upper chamber. It numbers nearly two-thirds of the Senate — about 60 votes. Democratic Senators, such as George of Georgia, Tydings of Maryland, and Byrd of Virginia, are not pushovers for leftwing foolishness, even if President Truman's new advisers needle him to go in that direction.

Labor Unions Will Have a Big Say

What is stated above should not be taken as any indication that labor unions will not have a lot to say about new laws and Administration policies, beginning next January. While this writer does not expect to see much more than the closed shop provisions and, perhaps, one or two smaller items, *including the Republican name* of the Taft-Hartley Act repealed, there are (despite all the talk about knocking out the law "lock, stock, and barrel") a number of other things that will be done to suit the organized labor crowd.

One of these likely to affect the telephone industry will be the minimum hourly wage increase amendment proposed for the Fair Labor Standards Act. Not only is this minimum hourly wage likely to go to 75 cents (from the present 40-cent minimum) but there is a chance that the 500 station exemption for switchboard operators' salaries may be knocked out in the process.

It will be recalled that the telephone unions sought to have that exemption repealed during the consideration of minimum wage legislation in the 80th Congress. It would be almost surprising if they did not seek it again. This time, they may be more successful. It will certainly take a good deal of persuasive argument to head it off.

As a matter of fact, some industry men are wondering if it might not have been a smart idea to let the minimum wage increase go through during the 80th Congress, when a compromise settlement of 65 cents or even 60 cents an hour might have been obtained. But that is hindsighted reasoning. The passage of such a law in the 80th Congress would certainly have been no guaranteed immunity against another bill in the 81st Congress that would take the minimum hourly rate even higher.

One thought that is gradually emerging from this unexpected victory of Democratic forces is the possibility of management getting on a better basis of understanding with the unions with respect to the needs of industry. Cynics may say this is simply a version of what the late Senator Jim Watson of Indiana called "joining 'em if you can't lick 'em."

But it is true that labor unions could be made more responsive to the need for cooperative action in such matters as rate increases if management wanted to make a special effort to enlist such cooperation. Last week in New Jersey a precedent was set before the public utilities commission when the telephone workers were granted the right to be represented by counsel as intervenors at public hearings on the New Jersey Bell Telephone Co.'s application for an increase of $16,036,000 annually in its intrastate rates.

At previous rate proceedings, employes of a utility company have made statements urging the commission to approve increases in rates, but never before have they been represented by counsel. The privilege of presenting testimony was given to Henry Mayer, counsel for the Telephone Workers' Union of New Jersey, representing 5,500 employes of the company's plant department, and 13,000 members of the Communications Workers of America, employed in the company's traffic department.

When Public Utilities Commission President Boswell was asked if he would permit the telephone workers to testify, he replied that the commission would receive any evidence relating to the rate case. Mr. Mayer said the unions would like the opportunity of making a presentation in this case for several reasons. He pointed out that the commission passes on the reasonableness of the rates and that the governor appoints arbitrators who pass on the question of wages.

Mayer charged that a vast army of the company's employes is being asked to a large extent to subsidize the business of the company. He said he was given to understand that the labor unions in the Bell system intend to intervene in all these proceedings, not to impose greater burdens upon the public but to show the public how the companies are treating the employes.

As a matter of fact, if the rank and file of labor unions once see the importance of necessary rate increases to provide additional revenues for payroll increases, management would be supplied with a politically powerful ally. Regulatory commissioners can argue with impunity over such matters as original cost and depreciation with corporation counsel. But they might think twice about giving any cavalier treatment to the arguments of labor counsel. Organized labor has demonstrated to the politicians during this last election that they can "pick off" public figures if they get mad enough about something. Utility management can't and never could. It's something to think about.

DIAL CONVERSION PRACTICES

By TORAL DUCKETT
Division Manager
Central Telephone Co.
Sioux Falls, S. D.

As we think of dial conversion practices, it seems that we should be considering the various phases which enter into the thinking of the conversion of any exchange for dial operation. Consideration of these could probably be divided into, *first*, why should conversion be made, *second*, preliminary work in the community, *third*, putting the plant into condition, *fourth*, near-conversion activities, and *fifth*, conversion activities.

As a person begins to think of the advisability or necessity of changing to dial operation in any exchange, it becomes necessary to consider from what standpoint the change is necessary. Is the condition of the service such that improvements are needed, and, as improvements are made, is it logical to change to dial operation? Is there a subscriber demand for dial in the community? If so, is this demand because of the present grade of service being furnished, or is it because of the people of the community wanting their telephone service to keep abreast with the times and change from possibly the old magneto system to the more modern dial service?

If it is a matter of customer demand, usually this can be attributed to a present poor grade of service, as in most communities, if the telephone service is reasonably good, there usually will be very little subscriber agitation for a change.

Then, too, the reason for changing to dial might be to put the exchange on a basis at which it will earn a fair return for whatever investment there might be. At the present time it seems that the earning of a return on capital investment has become one of the major problems in furnishing telephone service in a community, and quite often the rates are as high as we can expect the subscribers to pay for the present grade and type of service.

We find in some communities that the service is poor because, in many cases, we are attempting to give service over grounded rural lines, and with the advent of the rural electrification program in most rural communities, the service over these lines is very unsatisfactory. Then, too, the equipment probably has served a long life, and unless it has been constantly repaired it is not in condition to give a good grade of service. In many exchanges the problem of securing proper operating help to furnish service is very acute, and quite often it is necessary to pay operators far out of proportion for the amount of income from the exchange.

Any one of the above might be causes for seriously considering conversion to dial service. When it has developed that a dial conversion seems in the offing, it is well, and as a matter of fact, necessary that a careful analysis be made to determine whether the conversion could be made on a sound basis.

TORAL DUCKETT

That is, can the change be made, proper repairs completed on the plant, and equipment installed to complete the conversion to dial; and with this and the amount of money which is necessary to make this change, will you be in a position to earn an adequate return on your investment?

To determine this, it is necessary that very complete studies be made—one of the plant to determine what is necessary in the way of reconstruction and rehabilitation in order to put it in a good serviceable condition, and, also, commercial studies to determine the anticipated development, required services such as free or extended service, the franchise situation, and any other items which might affect the future operation of the exchange on a dial basis.

When the plant costs have been determined and the development estimated, you will then be in a position to determine how much money you are going to need in order to make the change to dial service. This, too, then, will give you a picture of what the investment in your exchange will be after the conversion to dial.

At this point you then should determine what rates will be necessary in order to pay your anticipated operating expenses, to provide for depreciation, to pay income taxes on an estimated net, and to have a net return which will pay a fair return on the investment which you expect to have after the conversion to dial.

With this, then, you have taken the preliminary steps and are ready to decide whether or not you can convert the exchange to dial operation, and from it obtain the revenues which will permit you to survive, and furnish good and dependable service to your community.

It is usually advisable to proceed to this point without local publicity, and this usually can be done if you have taken the necessary steps to consider the various problems in your exchange. You have now come to the point where it has been determined that conversion to dial should be made. You should then take the preliminary steps to accomplish this result.

Inasmuch as you probably are discussing this matter very generally around the exchange, it seems the first step should be to advise the employes of the conversion plans. The employes, particularly the operators, in the smaller exchanges can do much to make the plan either a success or a failure, and it is usually advisable to have a very frank and careful discussion of your plans with them.

At this point, you still have to have considerable information before proper planning for the plant work can be made. One of the first steps is to conduct interviews with the subscribers to determine from them the type of service and telephone which they will want, and at the same time advise them of the rates which you will need with the conversion.

We have found it advisable to obtain signed contract cards for the new service at the rates which we will need as the conversion is completed. At this point, too, traffic studies must be taken to determine the use which is made of the telephone service in the community. This is important in the planning for the equipment, as this will determine

quite largely the number of connectors which you will need, and also what the toll line requirements should be.

When this commercial and traffic work has been completed, you then should be able to give the manufacturer the details so he can proceed with the engineering of the equipment. Of course, this manufacturing work is apt to take a considerable length of time so even yet you are not close to the actual conversion of the exchange. However, you still must complete all of the plant work which has to be done, and which normally would include the purchase of land and construction of a building. These requirements are largely determined by the size of the town, or more specifically, by the equipment which you have found is necessary in order to provide service in the community.

Considering the plant work, the rural line reconstruction usually is a large factor. Because of present day costs, very careful planning must be given to the rural line work, and consideration given to the condition to which you wish to place the lines, and the number of subscribers that you expect to have on each of the lines. There also is the possibility that you have service lines in the community, and, if this is the case, consideration must be given to the work which they must perform, if they are to retain ownership, in order to put them into a condition which will work well under the new dial system. The service line situation is a real problem in connection with the conversion work, and a lot of time will have to be spent with the service line people.

We have found that it is to the advantage of everybody if meetings are held with them and help given in the formation of their plans for the conversion to dial, to the point that they will go ahead with the metallicizing work, proceeding with the drop and inside wire work, and the purchase and installation of the new telephones. Working this out with the rural line subscribers does not seem to be too much of a problem, as they are interested in good telephone service and are usually willing to pay for it, but it does require time both from a commercial, and an engineering and plant standpoint, in order to assist them in whatever plans they wish to follow in connection with the reconstruction of their lines.

You should work with them on the basis that they, too, would like to have good telephone service. We have found that in most cases they realize that their lines have deteriorated to the point that even reasonably good telephone service cannot be obtained over them, and usually most of the people in the community are in favor of spending what money is necessary in order to put them into a good operating condition.

As you consider this phase and problem of conversion work, you should remember that the service to the company-owned subscribers will be affected by the work which the service line people do or do not do in connection with repairing their lines. That is, as your company-owned subscribers desire to talk to these people, the quality of the service will depend very largely upon the condition of the service lines. In a community that has service lines connected to central offices, too much time cannot be spent in helping these people in their planning and engineering work to get their lines in condition. We have found that they usually are willing to pay for certain specialized telephone work which they like to have us do for them.

As you consider the town plant work, the interviews which have determined the type of service the subscribers want will give you at least a reasonably good picture of the cable facilities which will be required in the various sections of town. If the cable is in a reasonably good condition, tests can be made, and it is probable that with a minimum amount of repairs the present cable can be utilized. However, if it is in poor condition, it probably is most logical to replace it, and provide the necessary facilities in new cable in the various sections of town.

As you proceed further with the plant work you probably will find it advisable to replace all of the drop wires and inside wires at your subscribers' residences, and, of course, there is the installation of the new dial telephones. In some cases it has been noted that conversion of telephones has been made where the company has installed dials on the existing telephones and they have been made to work quite satisfactorily. In other cases, replacements have been made with a wall or desk type telephone. However, it seems more logical that if you are going to the expense and trouble of converting an exchange to dial operation, you should consider the installation of a modern type of service in your community, and thus provide modern telephones to your subscribers, if possible.

With this thought in mind, we have found that our subscriber reaction to the installation of modern handset telephones has been good, and this, too, we recognize, has been the means of furnishing better service to the subscribers. I believe we all well recognize that better service can be provided over the newer handset instruments.

The completion of the above mentioned plant work usually will take a considerable period, and probably will not be too far from the planning which you must make for the delivery of the equipment.

Throughout the entire conversion program careful records should be kept of all phases of the work—commercial, plant, and traffic. With these records, maps can be used extensively both for town and rural work. They can be used by interviewers as type of service is determined; by plant men as engineering of plant is done; by traffic in assigning new numbers and grouping subscribers; by plant men in building cable plant, checking terminals, installing telephones; by commercial in final interviews, and throughout the entire program to keep track of the progress of various phases of the conversion work.

As you come nearer to the conversion work, there are many problems which must be worked out with the people in the community. Among these are: (1) How will police and fire calls be handled; (2) on what basis will other emergency service be handled; (3) where will information on subscribers' numbers be given; (4) will information such as time of day, time of bus and train schedules, be given? If so, on what basis?

You also must work on the assignment of numbers on the basis of dial service, and the issuance of a directory.

It usually is found advisable to issue a cut-over directory to include as nearly as possible all of the directory listings up to the date of the cut-over. We have found that there usually are quite a number of changes, including new installations, soon after the cut-over, and this conversion directory can be made to serve for probably a maximum of about a month or six weeks. At that time it seems desirable to issue the regular directory for that exchange for the next directory period.

Further work must be done in the application of the new rates, and also working with the commission and the people of the community to obtain them. Final arrangements must be made insofar as the work which the present operators are to do. Will they be transferred to some other exchange or have arrangements for their employment with others, or retirement been made? As we approach the conversion date it is advisable to keep the subscribers well informed as to the progress which is being made, either by the use of advertising or bill inserts. It is necessary to determine the pay stations which the exchange should have and also make arrangements for collections. At this point, which is very close to the conversion date, all cable will

(Continued on page 38)

UNWANTED ALASKA EXCHANGE

Has 480% Gain in Nine Years

By MRS. MARTHA CUSHING*

Businessmen protested establishment of Sitka exchange in 1939. Company now has big backlog of orders for service. Natives enthusiastic over modern means of communication.

OURS is a telephone exchange where the operators sound the fire alarms and the curfews, log the calls of the "cop" on duty, and when they are unable to locate him quickly in his usual haunts, blink the city's street lights until he answers. This is an exchange in a small Alaskan city where there were 165 changes between six-month directories during the war years, at a time when slightly more than 300 subscribers were on the books. This is the Sitka telephone exchange, the fifth largest in Alaska.

Our company also owns the Kodiak telephone exchange, one of the most modern, fully automatic dial systems on the West Coast of the United States.

The Sitka exchange, itself, has made forward strides since it was inaugurated in 1939 with a single position switchboard and 95 subscribers. It was organized over the protests of local businessmen who foresaw hard going and ultimate failure for such an unheard-of venture in their city. But by 1943 another position had to be installed, and today the subscribers number more than 550. Even so, the demand for more telephones is greater than the supply, particularly during the summer commercial fishing season when the halibut and salmon fleets concentrate in the waters around Sitka and base many of their families there.

The number of Sitka telephone subscribers compares favorably with the customers of other utilities—five telephones to every eight light meters. And this is in a community where no one within its limits is more than a 10-minute walk to any point.

The most surprising factor in the development of the Sitka exchange has been the enthusiastic response of the natives, descendants of the Thlingit Indians, who were a warrior tribe when Alexander Baranof, the Russian, opened Alaska, or Russian America as it was then called, to exploitation late in the 18th century. The demand for telephones in "The Village" is so great and so consistent that we have "swamped" our lines, much to the disgust of the many fish buyers who return to Sitka each spring. Since "The Village" flanks the fish docks, supplying service to the buyers is an annual headache.

Indicative of the natives' attitude about telephone service is the observation of one venerable Indian. "These telephones are wonderful," he declared with awe, "better even than the dictionary, because they can understand Thlingit." And understanding that gutteral tongue is a distinct achievement.

We have been forced to adopt a rigid policy of payment in our dealings with the natives, and have explained to them that monthly bills must be paid by the 10th of the following month, or out come the telephones. Once an Indian girl, with a statement clutched in her hand, called at the office to say, "That's right, Martha, you send me 'push-along' and I pay my bill." "Push-along," of course, is their practical interpretation of what a monthly statement really is. And the telephone is one of their cherished possessions.

A veteran fisherman who had tangled with the government over fish trap regulations was voluble with his explanations of why he wouldn't be able to pay his bill on time. "The government has all my money," he said—an oblique reference to a stiff fine Uncle Sam had imposed.

Inauguration of the new Kodiak exchange mirrors our experiences in Sitka. We've even had to teach the Indians there every step in the use of the instruments.

Operating a telephone outfit in Sitka is probably similar to what it would be in the states. But I have never operated a system in the states, so my experiences here have no precedent. Our exchange is 160 miles from the next nearest telephone system, which is Juneau. We are located on Baranof Island, facing the open Pacific, and have no line connections with the mainland or any other island. The isolation itself is a problem that state-side systems can blissfully ignore. When a vital part is needed in a hurry it is not simply a matter of calling the next town and having it sent out by train, bus or plane. In Sitka there are no trains or inter-city busses, and while

(Continued on page 39)

MRS. MARTHA CUSHING

*Mrs. Cushing is owner-general manager of the Sitka and Kodiak telephone exchanges.

UNIQUE METHODS USED TO CONSTRUCT BUILDING

By GRANT SMITH
Administrative Assistant
Associated Telephone Co., Ltd.
Santa Monica, Calif.

PICTURE your home suspended in mid-air on two slender steel rods—each one and one-quarter inches in diameter—and you can begin to comprehend the problems and uncertainty that beset the engineers and contractors in construction of a new central office building for Associated Telephone Co., Ltd., in West Los Angeles, Calif.

The problem that faced Maurice Sasso, veteran structural engineer of Los Angeles, was to construct a 212-ton steel and concrete floor slab 65 ins. above its permanent position and then lower the slab to position, all without damaging or interfering with the service of more than two million dollars worth of delicate telephone switching equipment.

The unprecedented growth in the demand for telephone service in the area served by the Associated company, through this central office, necessitated enlargement of the company's 30-year old building, a one-story structure with brick walls and a truss roof.

Inspection of the building disclosed that mortar deterioration and dry rot in the timbers was so extensive that it would be impracticable to build upward on the existent structure. This report prompted the Associated company to replace the old building with a new earthquake and fire resistant two-story structure so designed as to provide a second floor sufficiently strong to support many tons of new equipment.

The problem arose as how to replace the old building with a new one on the same site without disturbing existing equipment, the functions of which could not be interrupted. The roof of the old building was at the same level as the proposed second floor of the new building. Delicate telephone equipment would have to be protected against the weather as well as dust and construction debris. Closely spaced telephone equipment on the first floor made it impossible to construct interior columns. Engineer Sasso met all these problems with a most unusual technique.

The operating telephone equipment was first literally encased in a giant plywood box, the deck being supported by a pipe scaffold. This "box" was constructed around the equipment inside the old building, and all joints were sealed to make them dust and weather proof. Then the new building was erected around the old one-story structure. The second floor of the new building, a giant span of 45½ ft., 72 ft. long, composed of massive structural steel girders and reinforced concrete, was to go in at the same level as the old roof. The old roof had to be kept intact until the roof of the new structure would provide shelter from the weather for the plywood-encased equipment, so the second floor slab was constructed above the old roof at a point 65 ins. above its permanent position. The old roof was then torn out and the floor lowered into place upon steel and concrete columns newly constructed outside of the plywood "box."

Interior columns could not be used, first, because of the hazard to equipment during construction and, second, because closely spaced equipment would have had to be moved and service consequently interrupted. To avoid this it was necessary to span the second floor and roof of the new building its entire width—48 ft. These spans were supported by a specially designed all-welded steel rigid frame structure built around the old building, with the supporting I-beams of the second floor slab resting on temporary brackets welded to steel columns on either side of the span, 65 ins. higher than its permanent position.

Seven of these I-beams 12 ins. x 30 ins. x 48 ft. long and weighing approximately three tons each, supported the reinforced concrete slab. The steel columns were specially designed of four heavy steel angles welded together with steel plates into a box section 16 ins. square. This design was necessary to permit the 12-in. steel I-beam to project through the column and be free to move downward when the floor slab was lowered.

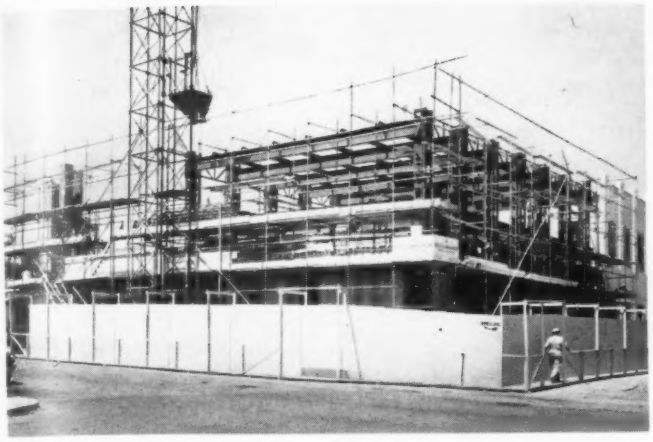
The steel framework of the second floor was attached to the I-beams and the whole unit encased in heavily reinforced light weight aggregate concrete. The new roof of reinforced concrete was then constructed in approximately the same manner, resting on top of the steel columns. With the new roof in place to shield the building from the weather, the roof of the old building was removed and the old walls wrecked, leaving only the equipment encased in the plywood "box."

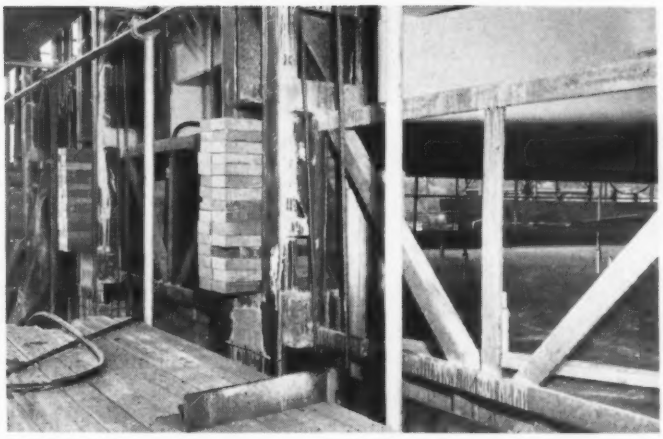
Then the operation of lowering the 212-ton steel and concrete second floor began. Specially designed yokes were attached to the steel I-beams and special brackets welded to the steel columns. Connecting these, a one and one-quarter inch steel screw six feet long was put in place and the nuts drawn up tight. The temporary brackets supporting the floor unit while it was being constructed were then cut, and the entire massive floor load became suspended on the steel screws—17 in all.

Lowering of the floor was accomplished by turning nuts on each of the screws simultaneously with six-foot wrenches, one man at each support. The nuts were so designed that they could be rotated only one-third of a turn at a time, with the legs of the columns acting as stops to insure uniform strokes of the wrenches. Screw threads were eight to the inch and each stroke of the wrenches lowered the floor one-twenty-fourth of an inch. Two days were required to bring the floor down to its permanent position. The men manning the wrenches were regulated by whistle signals, each blow of the whistle signalling a stroke of the wrench. Levels were kept at all times to insure even lowering and to check against possibilities of stripping threads. The steel supporting columns were calibrated and indicator fingers were welded onto the I-beams so that actual level at each support could be accurately checked to a fraction of an inch.

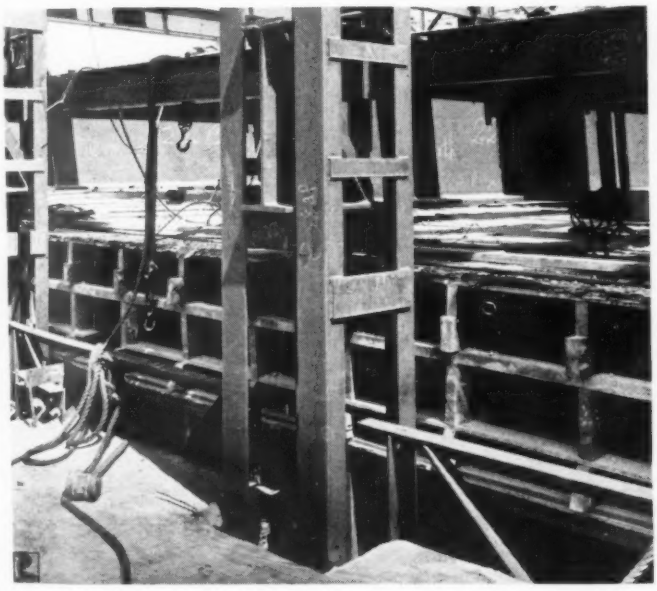
Safeguarding against possible failure of the entire operation was very simply accomplished after considerable study. A tremendous amount of hazard was involved in lowering the floor since the possibility of threads stripping, screws breaking, or nuts splitting was always present.

The general contractor at first insisted that insurance be written to protect him from damages in the event of failure of equipment not within his power to prevent. The cost of such insurance, if any company would undertake such a risk, was estimated by underwriters and found to be exorbitant. Such insurance, while it would have reimbursed the telephone company for damages that might occur, would not have prevented interruption of telephone service, the most impor-





LEFT PHOTO: Heavy steel beams, erected 65 ins. above the second story floor level of the Associated company's West Los Angeles building, awaited the pouring of the 212-ton concrete slab. RIGHT PHOTO: Two-by-six wood blocks, three feet long, were stacked into columns within one inch of the ceiling at all times to absorb the shock if a screw should break.



LEFT PHOTO: Detail of the supporting I-beams for the floating second floor as they rested on temporary brackets welded to box columns. RIGHT PHOTO: At the long-awaited moment, workmen simultaneously started to turn the screws lowering the giant slab.

RIGHT: The completed second floor span was wired and painted before being lowered to its permanent position. Center anchor posts for equipment frames dovetailed into the completed ceiling when it had been lowered.

tant consideration. So the idea was abandoned in search of a more practical method of safeguarding against failure.

Mr. Sasso finally devised a system that proved to be both simple and practical. He decided to use 2 x 6 inch hardwood blocks stacked within the columns where they could not be displaced, and extending from the permanent girder seats to the bottoms of the I-beams in their suspended positions. A one-inch block was used at the top of each stack, so that as the floor was lowered and the blocks removed one by one, the space between the top of the pile of blocks and the bottom of the I-beam could be kept to a maximum of one inch at all times.

The entire operation was engineered

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THE PLANT MAN'S *note book*

BY RAY BLAIN TECHNICAL EDITOR

MR. OTTO E. KOECHER, Signal Corps Engineer for the Headquarters Fourth Army, at Fort Sam Houston, Tex., and long-time friend of the writer, had the following to say in a letter received soon after his return from the recent national telephone convention: "I am back in the saddle again after a very pleasant week in Chicago meeting many old telephone friends. Sorry we didn't have a little more time to sit down for a real gab fest. Maybe the secret is for me to get into the bath tub with your pictures."

• • •

Alpeth is the name for the new plastic covered telephone cable developed by the Bell System to combat the lead shortage. This is a composite word that you will not find in the dictionary —"al" for an inner shield of aluminum, "peth" for a rubber-like outer coating composed of polyethylene, a plastic.

• • •

It has been said: "Wisdom is not necessarily shown by those who make no mistakes."

• • •

It is surprising to note the increased number of gadgets which may be attached to the telephone. Many of these have made their appearance during the past few months. The latest we have noticed is advertised as a most appropriate Christmas gift. This gadget is in the form of a radium dial watch which is designed to snap on the dial over the conventional number plate. It is not understood just why anyone should want a watch on the telephone dial. This is especially true when it costs $9.95, plus 10 per cent federal tax.

• • •

We have recently received a letter and pictures from Hy G. Kliewer, plant superintendent of the North Star Telephone Co., Mountain Lake, Minn., wherein he describes a power driven pole hole digger which they built and are successfully using on their system (See cut). His letter, in part, follows:

"We procured a universal digger equipped with a 14-in. auger which was designed for mounting on a tractor. When the digger arrived we debated as to whether the investment for a tractor would be justified. We were, however, influenced in our decision by the fact that a slow moving tractor could not be used to cover our territory, consisting of five exchanges, without considerable lost time.

"We had available a 1937 model Ford coach so we decided to mount the digger on it. We first shortened the wheel base of the Ford, then strengthened the rear spring and installed a 4-speed transmission with a power take-off. To mount the digger we constructed a square frame which was installed on the frame of the car. We mounted a hand winch on this frame which is used to raise and lower the digger. The sprockets for the power take-off are also mounted on this frame. The top braces from the digger are held in place on the corners of the frame by hand screws. These are adjustable, which is necessary when a hole must be dug on steep grades or on the side of a ditch.

"We have found that this arrangement has all the flexibility in adjustment that we need and also we can move about the territory at the same rate of speed as the trucks. The investment in this digger is small and we consider it especially suited to the needs of any small Independent company. We can dig holes 5 ft. deep with this machine."

This is certainly a novel arrangement and this company, in our opinion, deserves much credit for its ingenuity in designing a machine which meets its needs so admirably.

• • •

We are in receipt of a letter from C. F. Kelley, manager, eastern division of the Cook Electric Co., Greenwich, Conn., in which he refers to our comments in the Sept. 18th issue concerning sealed type relays. Mr. Kelley cites the "Stratopax" technique which was developed by the Cook Electric Co. during the late war. Stratopax, as the name signifies, is a thoroughly sealed enclosure containing electrical devices such as relays, solenoids, contactors, etc., in an inert pressurized gas atmosphere.

Operations of these devices are, therefore, independent of atmospheric conditions such as pressure, humidity, dust, ambient temperatures, etc. The units also provide complete explosion-proof protection. The use of an inert gas filler guarantees freedom from corrosion, assures maximum life of contact points and provides for improved heat dissipation capacity. The unit is also completely impervious to fungus.

(Continued on page 28)

you ALL THESE ADVANTAGES!

- √ Maximum use of outside plant facilities.
- √ Equalization of originating traffic loads.
- √ Fewer directory number changes.
- √ A simple intercepting arrangement.
- √ Upgrading without directory-number changes.
- √ Greater flexibility in cross-connecting facilities.
- √ Uniform telephone number (no extra suffixes).
- √ One and two code ringing (Semi-Selective).
- √ Harmonic ringing (Full-Selective).
- √ Superimposed ringing (Full-Selective).
- √ Ten-code ringing.

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"Stratopax" has been developed from new concepts of the hermetic seal. In carrying out this development program, Cook Electric engineers have conceived and used vastly improved techniques in sealing, inert gas filling, and seal tightness testing, so that the resultant service embodies a number of entirely new and exclusive advantages.

It is agreed that when many of these improvements can be applied to the telephone industry less trouble will be experienced with central office equipment.

PLANT MAN'S QUIZ

Q. Will aluminum paint prove satisfactory if placed on the roof of our telephone exchange?

A. Yes. Good aluminum paint is now being utilized extensively to protect roofs of all kinds. On wood shingles, always use aluminum house paint. On metal and composition roofs, use aluminum metal and masonry paint. On metal roofs, first use an inhibitive primer that will stop rusting. For best results, use two coats of aluminum paint in all cases.

• • •

Q. How can we prevent breakage of glass insulators on a pole located near a county schoolhouse? We have not been able to prevent children from throwing rocks and breaking insulators. Frequent replacement proves expensive.

A. We suggest the use of rubber insulators. These are made in a shape similar to the conventional glass insulators and will not break. Children will soon lose interest in throwing rocks at this type of insulator. In addition, the rubber insulator is efficient and has a long service life.

• • •

Q. We plan the installation of considerable buried cable for exchange distribution. Is it considered desirable to cover the sheath with a coating of compound or may we place the lead cable directly in the earth without mechanical protection of any kind?

A. Plain lead cable should never be buried unless tests of your soil indicate that it is free of all corrosive elements. Occasionally, in a sandy section of the country, this type of construction may be used with varied degrees of success. Even though the soil does not cause corrosion, cable not provided with some type of mechanical protection is often damaged by rodents and excavation operations of other nearby utilities. The method of covering the sheath with compound is generally considered obsolete at the present time because of its excessive labor cost. Usually, it proves cheaper and more desirable to install steel tape armored cable for underground construction of this type.

This type of cable should be payed off from a reel hauled along the trench during installation. If the cable is pulled off the reel and dragged into the open trench, it is certain to be damaged.

• • •

Q. We have a length of recovered 400 pair cable which we plan to reuse in an underground conduit. How can we test this cable to make certain that it does not have any sheath openings before splicing it into our working plant?

A. It is suggested that you seal a valve into each end of the length of cable in question and make a gas pressure test. Introduce gas into the cable and permit it to equalize and then test it with a pressure gauge. If the pressure remains constant overnight, you may be certain that it does not have sheath openings.

It is also a good plan to let the pressure remain on the cable during installation and test again prior to splicing.

• • •

Q. Why is it necessary to run protector ground wires by the most direct route and avoid kinks and turns?

A. Care should always be observed in running ground wires to place them as directly as possible from the protector to the ground connection. The elimination of loops or kinks will minimize the resistance to the flow of current from the lightning discharge. When lightning discharge is impeded in any manner in its flow to ground, a parallel path may be established. This path may be anything which acts as a better conductor. Sharp turns in the ground wire cause increased impedance, but a complete loop is far more serious.

When lightning fails to follow the ground wire, equipment is usually damaged because of increased resistance of the ground connection.

• • •

Q. When is it considered necessary to make a butt splice in an exchange cable?

A. In general, butt splices are considered necessary when two cables enter a manhole, or a terminal box, from the same direction. This type of splice is also frequently used where a buried cable is ended in a terminal box on the side of a building. In this case, a butt splice often makes it unnecessary to use a split sleeve.

• • •

Q. What is the meaning of the term, "characteristic impedance," of a telephone line?

A. It is entirely possible to build a telephone line so long that alternating current connected to one end would cause practically zero current flow at the other end. This action is due to the shunting effect of the distributed capacity and distributed leakage. Under this condition, it would not matter whether the distant end of the line is open or short circuited, the impedance measured from the near end of the line would remain the same. The line would, therefore, have a definite impedance that would not change regardless of how the line is terminated. This impedance is known as the "characteristic impedance" of the line. The value of the characteristic impedance of a line depends upon the size of the conductors, the spacing and insulation, the type of line, and the frequency of the current transmitted.

• • •

Q. Would it be possible to construct concrete cone anchors locally for use in guying a heavy open wire line?

A. While this action would be possible, we question its economy. As a rule, cone anchors are designed for use in rocky earth formations and in locations where moisture does not penetrate the earth to any great depth. When using the cone anchor, the walls of the hole must remain firm to resist the movement of the rock wedge, otherwise, the anchor will creep.

We doubt that a locally fabricated concrete anchor would prove as economical or satisfactory as one procured from your telephone supplier. In general, expanding type anchors are usually preferred for general guying of open wire at the present time. Many other type anchors are, however, used with complete success, depending upon local conditions.

• • •

Q. When rubber floor duct is cemented to a concrete floor surface to protect telephone wire runs, how is it removed when no longer required?

A. This type moulding is attached to the floor by the use of a special non-drying cement. While it holds firmly and will not loosen from walking or even moving furniture over it, it may be easily removed, when required, by a quick upward pull. It may be necessary to first loosen one end with a chisel or other sharp instrument to start the pull on removal.

Courts and Commissions

Orders New Rate Schedule for Miller, Neb., Independent

Doubled rates for town service and increased rural monthly charges have been ordered for the Miller (Neb.) Independent Telephone Co. by the Nebraska State Railway Commission (TELEPHONY, Oct. 16, p. 27).

Under the approved schedule, individual business and residence monthly rates are raised from $1.25 to $2.50; party residence from $1.00 to $2.00.

For the nine rural patrons having metallic service, increases range from $1.25 to $2.25 and for the 101 farmers on grounded lines, from $1.25 to $2.00.

The company had requested that all rural rates be also doubled, but the commission found that those rates would be excessive in view of rates recently found to be fair and reasonable.

In its petition, the applicant stated that: (1) it was in serious financial straits; (2) its equipment was deteriorated; (3) there was no reserve or funds to provide for any replacement; (4) the cost of operation as to material and supplies had doubled; (5) operators' wages had more than doubled since the present rates were put into effect; (6) there is no working capital and that each month it has been necessary to borrow on a temporary basis to keep an operator hired, and (7) a great deal of deferred maintenance and repair is needed. Dividends of 8 per cent a year had ben paid up to 1947.

The company operated in 1947 at a net loss of $561, with operating revenues of $2,568, operating expenses of $2,522 and taxes and miscellaneous charges to income of $607.20. The new rates would increase yearly revenues by $1,635.

The company operates 154 main stations, of which 110 are rural.

V V

C&P Applies for Third Rate Increase in West Virginia

The Chesapeake & Potomac Telephone Co. of West Virginia applied Nov. 8 to the West Virginia Public Service Commission for its third postwar rate increase.

J. R. B. Crigler, vice president and general manager, said the increases, estimated to produce approximately $2,300,000 in additional net income, were requested "in order to place the company on a financially sound basis and to permit it to furnish adequate telephone service."

In its application, the company pointed out that its financial position is more critical than it was before an original rate increase granted in 1947.

The company reported that since 1947 it had spent more than $20,000,000 for additional plant, and that it will be required to spend for construction purposes approximately $35,000,000 within the next few years "in order to continue to improve and expand telephone service as demanded by the public of West Virginia."

It added that it "cannot continue to meet the public demands and furnish satisfactory telephone service with the existing critical earnings."

The commission authorized a 12 per cent increase July 1, 1947, the first general rate increase in 22 years.

Again on June 1, 1948, increases calculated to add $891,000 to annual net revenues were authorized for a period continuing through January.

The petition contends that the rates in effect since June 1 "have produced a rate of return on the company's net original cost investment within the state of less than 3 per cent, and when adjusted to reflect present increased costs, of only 2 per cent."

V V

Larson, Palmer Elected to Nebraska Railway Commission

Republican nominees, Richard H. Larson of Lincoln and Harold Palmer of Omaha, won positions on the Nebraska State Railway Commission in the November election.

Mr. Larson, a former member, was elected for a six year term, succeeding Chairman John Knickrehm of Grand Island. Mr. Palmer was chosen to fill the unexpired term of Duane T. Swanson, resigned.

Three Independents, Bell Receive Increases in Georgia

Three Independent telephone companies and the Southern Bell Telephone & Telegraph Co. received orders recently from the Georgia Public Service Commission authorizing increased rates. They are:

The Blakely (Ga.) Telephone Co. The new rates to be effective when the exchange is converted to dial:

	Proposed	*Authorized*
One party, business	$5.00	$5.00
Two-party, business	4.00	4.00
Four-party, business	——	3.00
One-party, residence	4.00	3.25
Two-party, residence	3.25	2.50
Four-party, residence	2.75	2.00

The commission accepted the company's estimate of its plant value, following conversion to dial, of $76,121.18 and estimated that the new rates would increase annual revenues by $6,576.76, producing a net income of $5,236.22.

Milledgeville (Ga.) Telephone & Telegraph Co.:

	Present	*Proposed*	*Authorized*
One-party, business	$4.35	$5.50	$5.00
Two-party, business	3.75	4.25	4.25
Four-party, business	3.00	3.50	3.25
One-party, residence	2.75	3.50	3.40
Two-party, residence	2.35	2.75	2.70
Four-party, residence	1.90	2.25	2.00

The commission approved the company's figure of $221,409.21 as gross plant value after making necessary additions. However, deducting $70,203.53 depreciation reserve, and adding $2,610.16 for materials and supplies, the commission set the rate base at $153,815.84.

The commission estimated that the new rates would produce an additional $14,274 in annual revenues and would give the company a net income of $11,-

079.29. It was noted that the rate of return to the company would be 7.2 per cent on the above mentioned rate base, but the commission said there is a possibility that all of the estimated additional stations may not be connected and that this would result in a loss of revenue, thereby reducing the above rate of return.

Southern Bell Telephone & Telegraph Co. (new rates at its McDonough exchange effective upon conversion to dial):

	Proposed	*Authorized*
One-party, business	$3.50	$4.25
Two-party, business	2.75	3.50
Four-party, business	2.25	3.00
Eight-party, business	2.25	2.75
One-party, residence	2.00	2.25
Two-party, residence	1.75	2.00
Four-party, residence	1.50	1.75
Eight-party, residence	1.50	1.75

Hawkinsville (Ga.) Telephone Co.:

	Present	*Proposed*	*Authorized*
One-party, bus. H. S.	$3.15	$4.75	$4.25
One-party, bus, W. & D.	3.00	4.75	——
Two-party, bus. H. S.	2.65	4.00	3.50
Two-party, bus. W. & D.	2.50	4.00	——
One-party, res. H. S.	2.15	3.50	2.75
One-party, res. W. & D.	2.00	3.50	——
Two-party, res. H. S.	1.65	3.00	2.25
Two-party, res. W. & D.	1.50	3.00	——
One-party res.	——	2.50	1.75
Rural bus.	2.25	2.50	2.50
Rural res.	1.75	2.00	2.00

Taking into consideration that 50 held orders for service probably would be filled as a result of contemplated additions to plant, the commission estimated that the new rates would increase gross revenues by $6,821.40, which would give the company needed relief.

Failing to find a rate base because of inadequate accounting by the company over past years, the commission said:

"The commission is without adequate information with which to determine an accurate plant value and a reasonable amount for accrued depreciation. According to the annual reports filed with the commission, there has been no change in the plant accounts for a number of years, while the depreciation reserve has decreased each year, although depreciation expense is charged annually. These conditions indicate that plant additions have been charged to operating expense accounts and that actual earnings over a period of years have, therefore, been greater than indicated by reports made to the commission.

"The records of the company, however, are not in sufficient detail to permit a precise correction of past accounting, but the company should now install an accounting system in which additions to plant should be charged to that account and operating expenses should be charged to the proper expense accounts. If this procedure is followed there should be no understatement of plant value and no abnormal charges to expense. . . .

"There is good reason for denying this application, based on the inadequate and inaccurate accounting records of the company which show no increase in fixed capital over a period of years, the investment presumably being charged to expenses. If such investment has been paid for out of operating expenses, it might equitably be eliminated from the rate base of the company, and future operating expenses reduced to eliminate capital charges. However, this undoubtedly would work a hardship on the company even to the point where service to the public would suffer.

"Under the circumstances, some increase in rates will be prescribed, but the increase will be substantially less than the amount requested, and continuation of the new rates will be dependent upon the company correcting its accounting methods and practices. The increased rates will provide increased revenues slightly in excess of alleged increased operating expenses and lacking better factual information, appear to be sufficient."

V V

Mebane, N. C., Independent Applies for Increased Rates

Declaring that existing rates do not provide a return adequate to make improvements and additions required for continued satisfactory service, the Mebane (N. C.) Telephone Co. on Nov. 9 requested the North Carolina Utilities Commission for permission to increase one and two-party rates by $1.50 a month.

In its petition, the company pointed out that during the first six months of 1948 it grossed $9,699.82, against expenses totaling $8,875. The company serves 549 telephones.

Proposed increases would raise monthly business charges from $3.50 to $5 for one-party and from $3.25 to $4.50 for two-party. Residence rates would be increased from $2.25 to $4 for one-party, and $2.25 to $3.50 for two-party.

The company is also seeking to up the charge for telephones owned by subscribers from 65 cents to $1.00 a month. The monthly charges would remain the same: three and four-party, business, $3.00; three and four-party, residential, $2.00; rural service $2.00.

Kentucky Commission Rejects Bell Raise as "Unreasonable"

The Southern Bell Telephone & Telegraph Co.'s application for a $2,055,000 rate increase was rejected completely Nov. 9 by the Kentucky Public Service Commission (TELEPHONY, Oct. 2, p. 36).

The commission held the increase unreasonable and improper. It said Southern Bell is earning ample revenue and is paying its stockholders a fair return on their investments. The ruling denied numerous other claims of the company.

Southern Bell put the $2,055,000 a year raise into effect last July 16 under a $750,000 bond assuring refunds to customers in event the commission found any or all of the increase unreasonable.

The opinion was delivered on the basis of company testimony given last summer. Southern Bell is expected to appeal the decision. By doing so, it could keep the higher rates in effect until the case clears the courts.

V V

Increased Rates Approved For Silver City, N. M.

The New Mexico Corporation Commission has received from the Mountain States Telephone & Telegraph Co. revised local exchange rates for Silver City, N. M., filed on Oct. 28, and to become effective Nov. 28, upon statutory 30-day notice.

The increases are:

	Present Rates	*New Rates*
One-party, business	$5.00	$5.50
Two-party, business	4.00	4.25
One-party, residence	3.00	3.25
Two-party, residence	2.25	2.65
Four-party, residence	2.00	2.40

V V

Five Minnesota Independents Seek Rate Increases

Five more Minnesota Independent telephone companies have applied to the Minnesota Railroad & Warehouse Commission for authority to increase rates. The companies and scheduled hearing dates are as follows:

Hastings (Minn.) Telephone Co., Nov. 8; Pelican Telephone Co., Pelican Falls, Nov. 9; Deer River (Minn.) Telephone Exchange, Dec. 9; Mankato (Minn.) Citizens Telephone Co., Dec. 13, and St. James (Minn.) Telephone Co., Dec. 14.

V V

Buys Missouri Company

The Luray (Mo.) Telephone Co. has been sold to A. A. McSorley, according to a recent announcement. The Luray telephone service was formerly owned by a group of farmers who formed the organization a number of years ago.

Economy

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These are lasting economies—savings which will be reflected in your net earnings year after year for the entire life of the equipment. No other dial equipment can approach the low operating cost of the McBerty System.

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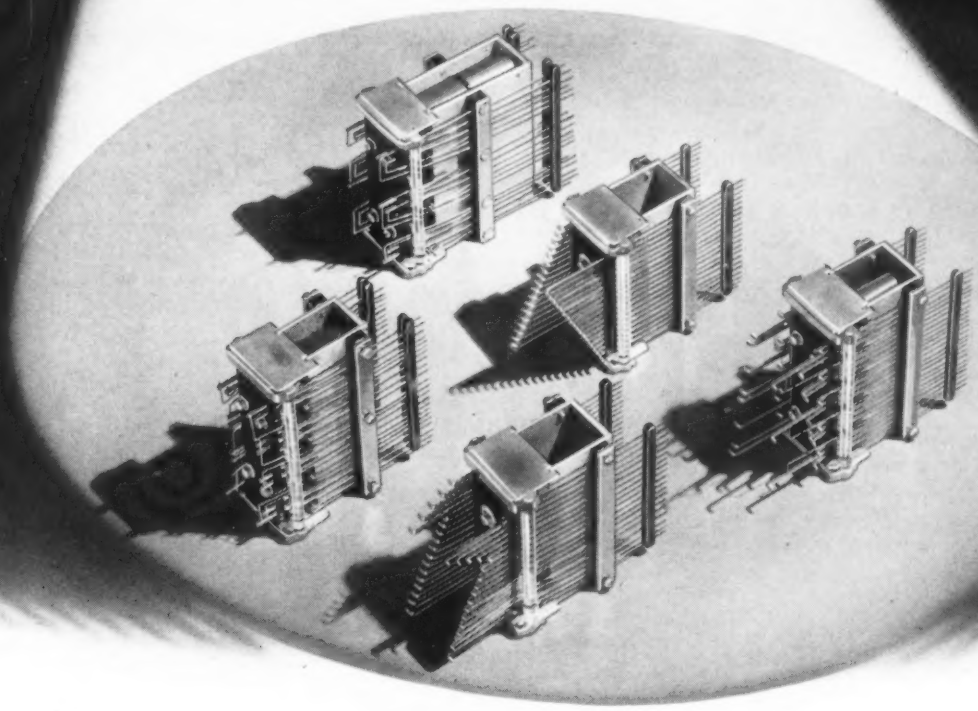

NORTH

THE NORTH ELECTRIC MANUFACTURING CO., Galion, Ohio, U. S. A.

Originators of **ALL RELAY** *Systems of Automatic Switching*

Extends Listing Rates

The Platte Valley Telephone Corp., Scottsbluff, has been authorized by the Nebraska State Railway Commission to extend to all of its exchanges the rate of 25 cents for additional listings now limited to Scottsbluff, Bayard, Lyman and Minatare, previously approved. The company operates 14 exchanges, serving 27 towns in the North Platte Valley in Nebraska and Wyoming.

V V

Kansas Commission Recesses SW Bell's Rate Hearings

The Kansas Corporation Commission on Nov. 8 recessed indefinitely its hearing on the Southwestern Bell Telephone Co.'s application for a temporary rate increase designed to produce $3,333,333 annually (TELEPHONY, Oct. 9, p. 26).

Hearing had been resumed on Nov. 8 to permit completion of testimony by Cyrus G. Hill, engineer retained by the commission.

Mr. Hill testified that an investigation he has made shows Bell is charging off about $200,000 a year in excess of actual depreciation on the company's plant investment in Kansas.

Commission members announced that the hearing will be resumed when Southwestern Bell has complied with a commission order to show the investment, expenses and revenues for each of the company's 143 Kansas exchanges.

The telephone company recently was granted an interim $1,200,000 annual increase by the commission. Southwestern Bell has until Nov. 22 to accept this increase which it contends "barely pulls the company out of the red" and "fails to provide any return on investment."

V V

Hearings on North Dakota Bell Rate Case Scheduled

The first of seven public hearings ordered by the North Dakota Public Service Commission in connection with the application of the Northwestern Bell Telephone Co. for authority to increase rates for local exchange telephone service in that state was held at Fargo on Nov. 8.

Evidence in support of the company's need for additional revenues was presented by W. J. Brazell, vice president and general manager for the company in North Dakota.

Other hearings were scheduled as follows: Jamestown, Nov. 9; Bismarck, Nov. 10; Grand Forks, Nov. 16; Rugby, Nov. 17; Williston, Nov. 18, and Dickinson, Nov. 19.

Summary of Commission Rulings and Hearings

California Public Utilities Commission

Oct. 25: Hearing on application of Interstate Telegraph Co., Bishop, to extend its telephone service area to include Bishop Creek exchange and others.

Oct. 25: Order issued authorizing Pacific Telephone & Telegraph Co. (1) to establish extended service in San Lorenzo Valley and Santa Cruz County; (2) to discontinue toll rates.

Florida Railroad & Public Utilities Commission

Dec. 1 and 6: Hearings on rate petition of Southern Bell Telephone & Telegraph Co.

Illinois Commerce Commission

Nov. 9: Continued hearing on complaint of United Sound Systems, Inc., Chicago, vs. Illinois Bell Telephone Co., regarding alleged refusal to install service.

Nov. 9: Hearing on complaint of Harrisonville Grange vs. New Milford (Ill.) Telephone Co. and Illinois Bell Telephone Co. regarding their alleged failure to provide adequate service between New Milford and Rockford.

Kansas Corporation Commission

Dec. 7: Hearing on application of Grainfield (Kan.) Telephone Co. for authority to change rates at Park.

Dec. 7: Hearing on application of Howard E. Puckett for permission to

(Continued on page 46)

This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these Shares. The offer is made only by the Prospectus.

100,000 Shares

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$1.32 Cumulative Preferred Stock

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November 15, 1948.

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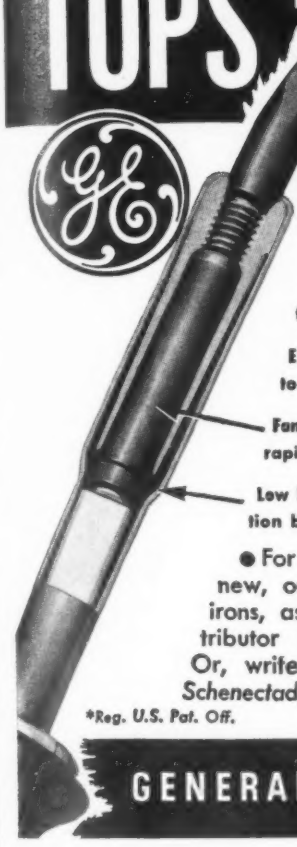

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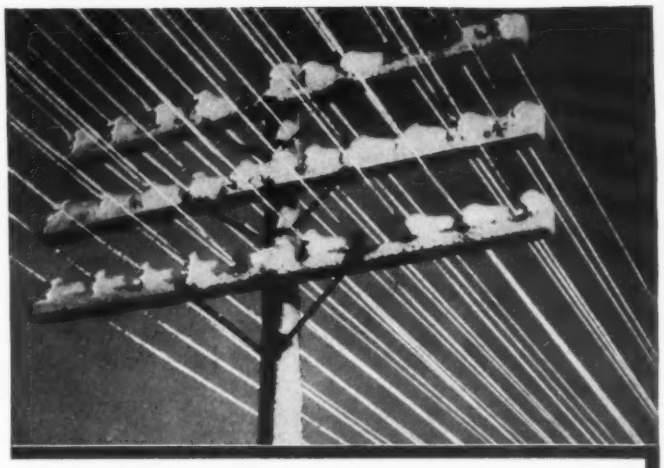

Snow and Sleet -but no breaks

That's how you save money with U·S·S Amertel

● When snow and sleet hit your lines the extra strength of U·S·S Amertel-85 and 135 pays off in lower maintenance and better continuity of service.

Amertel-85, Size No. 12 B.W.G. has a breaking strength of 793 pounds—90% greater than that of E.B.B. wire and 55% greater than that of the "Steel" grade.

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Both of these Amertel lines will withstand greater loads of sleet, ice and wind with an increased factor of safety. What's more they have better transmission efficiency at voice frequency.

We will gladly supply you with complete technical data on U·S·S Amertel-85 and 135.

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Tennessee Coal, Iron & Railroad Company, Birmingham, *Southern Distributors*
United States Steel Export Company, New York

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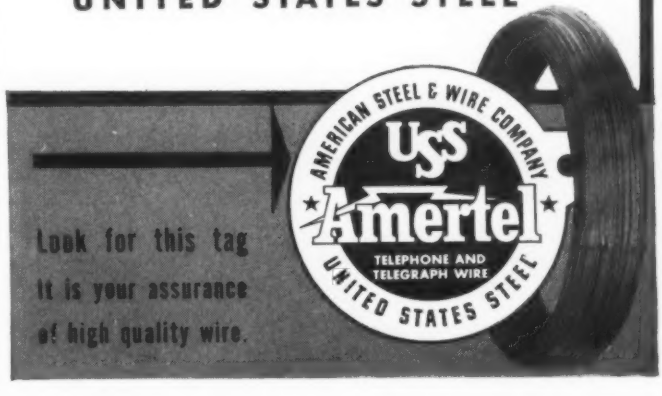

Look for this tag
It is your assurance
of high quality wire.

IT'S GOV'T. SURPLUS! IT'S BRAND NEW! IT'S in the Original Cases

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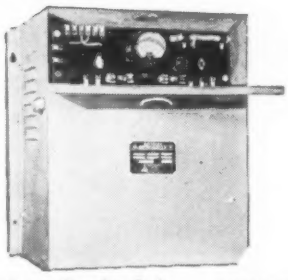
Practically 1/5 of its original value



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W-3826—Range of unit 23/24 cells, 46 to 48 volts @ 3 amp. Input supply source 95 to 130 volts, 60 cycles..... **$69.50**

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Consists of a hollow shaft which is equipped with a crank and contains a chuck. The shaft is provided with a collar whereby the chuck is adjusted to grip the stop shoulder of a No. 109 or No. 110 plug.

Individually packed in original cartons. Shipping weight —6 lbs. Our Special Price. Each..... **$9.95**

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Associated Company Sponsors Signal Corps Units

Sponsored by Associated Telephone Co., Ltd., the first two Signal Corps affiliated units to be formed by a telephone company in the west were activated at a dinner given in honor of the reserve officer members in Santa Monica, Calif., on Oct. 22. Officer personnel of the units—a Heavy Construction Battalion and a Depot Company—is comprised entirely of reserve officer employes of the company, with Maj. O. L. Akins and Capt. Howard P. Lanning as commanding officers of the battalion and the company, respectively. Capt. Irwin C. VanderHeide was appointed executive officer of the Heavy Construction Battalion.

The Signal Depot Company will carry the same numerical designation as the company-sponsored unit formed in 1942 and will be entitled to carry on the history of that company.

At the activation ceremony, Edwin M. Blakeslee, president of the Associated company, explained that the war department affiliation program contemplates that industry will sponsor certain key service units of the organized reserve. "The chief of staff," he said, "has stated that effectively organized affiliated units may well be a vital factor in a military emergency, for they provide a nucleus of highly trained officers who are ready at a moment's notice to direct their skills and training to the defense of the nation."

He mentioned that tradition of service which men of the Associated company established in three affiliated units during World War II and said to those who were participating in the activation ceremony, "In requesting membership I am sure you have been motivated by an earnest desire to manifest the esteem with which you regard citizenship in this great country of ours, as well as the desire to devote your experience and skills to the greatest benefit of our nation."

In conducting the activation cere-

E. M. BLAKESLEE, president, Associated Telephone Co., Ltd., and COL. L. C. PARSONS, Signal Officer Sixth Army, shown with officers of the newly activated 314th Heavy Construction Battalion. FIRST ROW, left to right: MAJ. O. L. AKINS, JR., MR. BLAKESLEE, COLONEL PARSONS, CAPT. I. C. VANDERHEIDE. SECOND ROW, left to right: LIEUT. R. J. RANTMAN, CAPT. W. D. ANDERSON, LIEUT. J G. GIBBON, CAPT. J. I. McCULLEY, LIEUT. C. G. MAULE and LIEUT. J. F. VINEY. TOP ROW, left to right: CAPT. GEORGE JANESICK, LIEUT. J. B. BLACK, LIEUT. C. B. MILLER and LIEUT. A. R. NELSON.

First assembly of officers of the new 217th Signal Depot Company at activation ceremonies held in Santa Monica on Oct. 22. Left to right: CAPT. H. P. LANNING, LIEUT. J. J. HIGGINS, E. M. BLAKESLEE, COL. LLOYD C. PARSONS, LIEUT. S. I. McCARON and LIEUT. O. B. ELFES.

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Hemingray No. 42. Standard
many years. Its long leakage p
keeps toll lines trouble-free.

Hemingray Insulators have serv
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Proof against every kind of weath
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That's why leading telephone a
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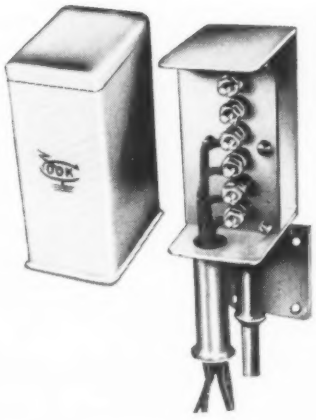
for shorter drops... less bracket lines

cook 3-pair XB terminal

An addition to the well-known XB family of unprotected terminals, this development provides far better, more economical means of subscriber distribution out of rural cable.

The 3-pair XB Terminal was especially designed to reduce to a minimum all factors that would cause high resistance and the possibility of line leakage and maintenance. Hence the heavy, close-fitting welded zinc cover; the noncorrosive Monel faceplate on which are mounted the highly insulated cable studs; the use of the flanged tube as an entrance for drop wires. This tube can be completely sealed after the drop wires are installed.

The new Cook Terminal measures 7½" high, 3¼" deep and 2½" wide. It is furnished with or without cable stub, to user's specification.



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Before a single inch of Kennecott cable leaves the mill, it is tested for Dielectric Strength, Insulation Resistance, Conductor Resistance, Capacitance and Fixed Dimensions. Such care in manufacture is your warranty of efficient, trouble-free performance in the field. Specify "Kennecott"—distributed by Stromberg-Carlson.

Model 1200 B
Single Phase
24 Amps.
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SUPERIOR IN 5 WAYS:

1. **ECONOMY:** Experience has proven FLOTROL can save on power costs up to 20% per year.
2. **DEPENDABILITY:** Mechanical failures are cut to next-to-nothing because FLOTROL has no moving parts.
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4. **LIFE-SAVING:** FLOTROL works while your battery rests—gives any battery longer life.
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When you order Koppers Creosote (or Koppers Creosote-Coal Tar Solutions), it's important to remember that you're getting products that have decades of dependable performance behind them . . . that have established enviable records as wood preservatives everywhere.

Send in your order now. And if you want to *play safe*, ask about Koppers yearly contracts that take care of your future needs.

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All Standard Specifications

For All Types of Wood Preservation

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mony Col. Lloyd C. Parsons, Sixth Army Signal Officer, stationed at the Presidio of San Francisco, said that although we broke down an ideology in World War II with which we were not sympathetic, others have risen to replace it, and today there are sinister forces at work to undermine all that we value. "If another war comes," he said, "the country with the best trained manpower and the greatest amount of military resources will be at the top of the heap. The officers of these units have had military training; they are all highly skilled in civilian functions that are so essential in case of war. What better job can be found for any man than to direct his skills to the defense of his nation."

During the ceremony Colonel Parsons presented to the two commanding officers guidons bearing the unit designations. In all, 17 officers were inducted into the units. In addition to Major Akins and Captain VanderHeide, Capt. Wm. D. Anderson, Lieut. James M. Beatty, Lieut. James B. Black, Lieut. John G. Gibbons, Capt. George Janesick, Capt. John I. McCulley, Lieut. Carter G. Maule, Lieut. Clarence B. Miller, Lieut. Archie R. Nelson, Lieut. Reinc J. Rantman and Lieut. John F. Viney were inducted into the Heavy Construction Battalion.

The 217th Signal Depot Company consists of Capt. Howard P. Lanning, Lieut. Orlo B. Elfes, Lieut. John J. Higgins and Lieut. Stephen I. McCaron.

Present at the ceremony in addition to unit members were three officers of Colonel Parsons' staff and all members of the Associated company staff who, in addition to Mr. Blakeslee, are Vice President Harlan W. Holmwood, Secretary-Treasurer R. K. Chase, Personnel Manager Marshall K. Taylor, General Auditor G. T. Ellis, and department heads Owen G. Jarboe, Dean M. Barnes, Thos. A. Osborne, and Ernest W. Watson.

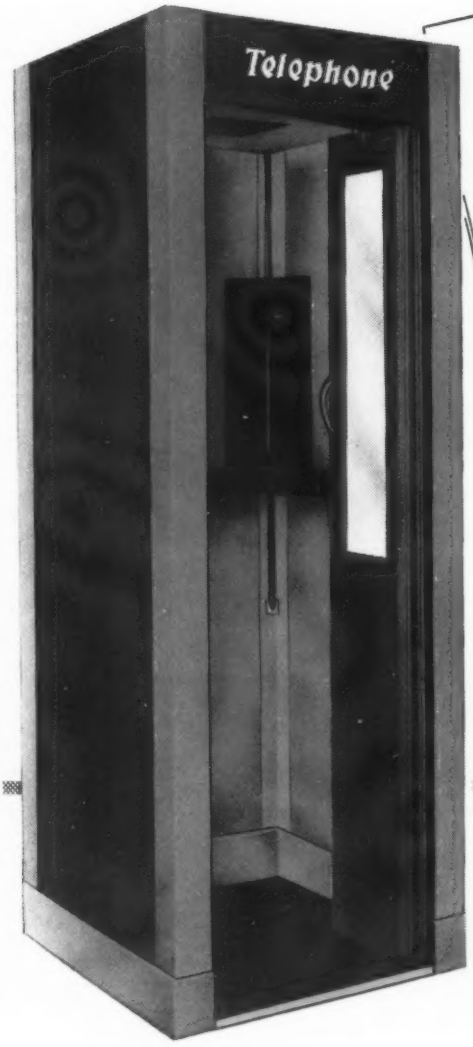
V V

Frank H. Woods Honored for Gift of Land to Lincoln, Neb.

Lincoln (Neb.) and Ak-Sar-Ben recently paid tribute to Frank H. Woods for his gift of $65,000 to the city for the purpose of buying a 50-acre tract for park and civic purposes.

W. D. Lane, Omaha, newly named king of Ak-Sar-Ben, presented Mr. Woods with that organization's "Good Neighbor" citation in recognition of his philanthropic activities in general, and for his tract gift in particular.

The good neighbor awards are given annually to Nebraskans who have performed outstanding public service without monetary award or financial gain.



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Designed to..**SERVE BETTER**

Built to....**LAST LONGER**

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Sherron has taken the telephone booth out of the shadows and set it out front—right in the spotlight of modern architectural trends.

Bright, colorful, Sherron booths have permanent sparkle, lifetime attraction.

The patron who enters a Sherron acoustic stainless steel telephone booth is instantly and completely comfortable. Scientific ventilation, correct light diffusion—never before have telephone booths been designed to serve and satisfy the user so well.

In acoustical efficiency, no other booths afford so high a degree of undisturbed privacy, or as effective security against distracting outside noises.

Modern design, bright color, lifetime durability, minimum maintenance—the sum of these is the Sherron acoustic stainless steel booth . . . the booth of tomorrow—today!

Sherron booths are winning the favor of the topmost companies in the telephone domain. There's a reason . . . the best companies demand the best equipment!

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SHERRON METALLIC CORPORATION

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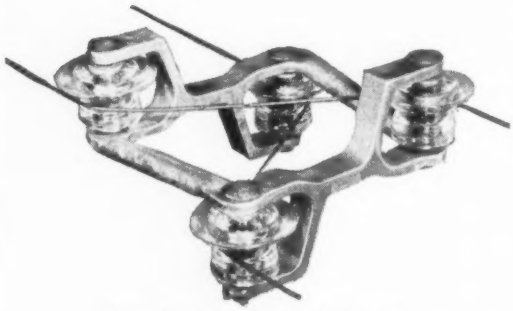
CARRIER CIRCUIT TRANSPOSITIONS

The Case *SPAN* Transposition Bracket — a new idea for carrier circuit transpositions *between poles*

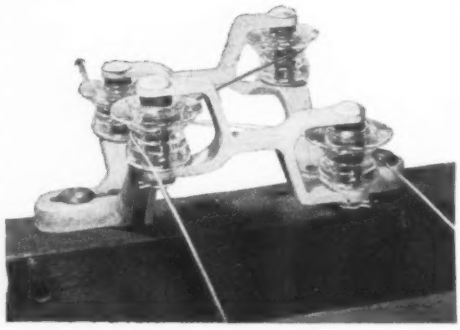


Case Span Transposition Bracket

• Ideal for carrier circuits and long-span rural construction • transpositions at exact positions • easy to install • no cutting of line wires • saves number of poles in new line construction, in reconstruction, and in pole changes on constructed lines • fabricated from magnesium, lightest of all structural metals • weighs less than 3 lbs. complete with insulators.

The Case *POINT* Transposition Bracket — a worthy companion to the Case *SPAN* Transposition Bracket — offers an improved method for carrier circuit transpositions *on located poles*

The Case *POINT* Transposition Bracket *reduces tensioning costs* in stringing, or restringing wires . . . the glass insulators *roll*, preventing binding in tensioning, allowing free movement of the wire at the transposition point . . . the insulators come equipped with rubber bushings which maintain line circuit operation in event of glass breakage . . . easy to install . . . fabricated from magnesium, lightest of all structural metals . . . weighs less than 4 lbs. complete with insulators.



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Order from your local distributor or direct.

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Dial Conversion Practices

(Continued from page 20)

have been tested; new drops, inside wires, and telephones will have been installed. The traffic department will work with the plant department on the assignment of numbers, this having been done, of course, prior to the issuance of the directory, and even while the plant department is working on their cable plant and cuts for the conversion.

At the time of conversion, the plant department should proceed with the work of cutting out the old telephones and cutting the new ones on the line and checking the telephone for ringing to the proper side of the line. We have found it advisable, as soon as possible after the new telephones are working on the dial system, to interview all subscribers. They should be thoroughly instructed on the use of the telephone. Collections should be discussed with them.

We have found that with the conversion of an exchange there are usually three methods we can provide for the payment of the subscribers' accounts: (1) By payment to the master office, usually, a nearby company-owned exchange; (2) by payment to a local collector, usually a bank, restaurant, or store, or even some individual, and (3) by establishing a bank collection policy whereby we can take the subscribers' statements to their bank and have the bank handle it just as they would a check written against the account. We make a decided drive to establish the account on this latter basis.

Any extended or special service should be outlined. If a time disconnect arrangement is in the equipment, the subscriber should be advised as to how it works. Explain the use of "press-to-talk" switch. Police and fire arrangements, and how to obtain emergency assistance, should be outlined, and information and DSA arrangements mentioned to them.

At this point, the conversion will have been completed, and we feel that this commercial interview should, in addition to outlining the service and advising the subscriber with regard to it, pick up any service difficulties which we might have as the conversion is made. Each subscriber's telephone is tested both on out and incoming calls, and, if on a party line, it is tested and instructions are given as to the use of the telephone for a reverting call. We tell our commercial people that it is

their responsibility to see that, as they leave a subscriber's house, the customer is well satisfied with the new dial service. We have found that when this is the case our complaints have been greatly minimized in the subscribers' future use of the service.

It is a very fine achievement to be able to provide for your community modern dial service, but as you are planning and completing the arrangements it seems best that you should not stop short in providing the best service possible to your subscribers, or should you fail to keep in mind that the only way that you will be able to continue the service is to make a careful analysis of every expenditure made in connection with the conversion, and with that, obtain rates which will permit you to continue the service in the future.

(The foregoing is an address presented at the recent convention of the South Dakota Telephone Association.)

Unwanted Alaska Exchange

(Continued from page 21)

planes are on a daily schedule the weather may ground them for a week or more at a time. So Sitka Telephone is forced to carry a rather complete stock of parts, equipment and accessories. During the war the United States Navy made many requests for emergency parts for its own system on Japonski Island, across a narrow channel from Sitka. Another "requisition" that was harder to take was the constant drain of operators for the Navy's switchboards. We trained approximately 50 girls at our boards during the war, only to lose them because of better-paid government jobs. That situation, of course, is gone now. Currently we have a staff of three regular operators, two relief girls and two maintenance men, with extras for special jobs.

Weather conditions offer no serious obstacle to operating a telephone exchange in Sitka, with the single exception of the rains that keep equipment wet for weeks at a time. The toll on drop lines is terrific. Yet Sitka has none of the violent storms that can wreck a line network. Even moderate winds are rare, and there are no tornados, cyclones or blizzards to cope with. It will be another story in Kodiak where our lines will be subjected to hard and prolonged gales.

Until last September we had no long

THE NEW JAQUES

Model 10 TRENCHER

Spells ECONOMY *in trench digging*

Jaques has now added a new, low-cost *trencher* to its line of time and labor saving machines . . . Trenching at speeds from 6 inches to 30 inches per minute and to *depths of 3 feet*, this little giant presents economy of operation that means 'money in the bank' . . . and quickly! The 'little' man, the individual contractor, can cope with large organizations when he uses the Jaques Model 10 Trencher, for the initial investment is *small* and the day after day profits are large!

Jaques 'Model 10' trenches at truly *great* economy . . . not just your operational costs (your gas and oil consumption) but your *repair* and *upkeep* costs as well, are lower, providing greater economy *each minute* you operate! Make arrangements for a demonstration now. Seeing is believing! ! !

BUCKET SPEED: 165 inches per minute.
TRENCHING SPEED: 6 inches per minute to 30 inches per minute, depending on soil conditions. Two feet per minute in average soil.

SIZE OF TRENCH: 4 inches wide, 3 feet deep.
TRENCH FILL-IN: Angle type dozer fills trench at tractor speeds.
TRACTOR SPEEDS: From 2¾ to 7-1/3 miles per hour. One reverse speed at 2 miles per hour.

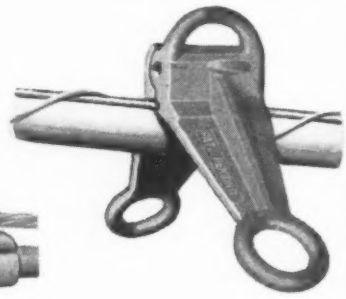
JAQUES POWER SAW CO.

DENISON TEXAS U. S. A.

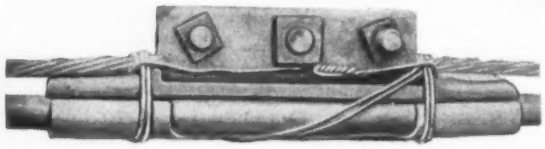
Maintenance Spinning PAYS 7 WAYS

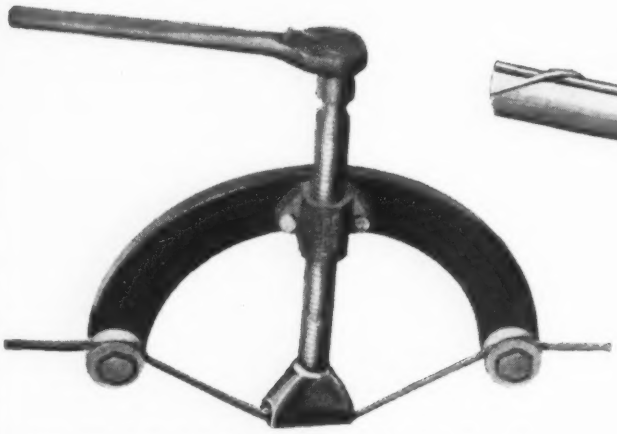
1. Cuts cable maintenance costs at least two-thirds!
2. Extends life of cable many years!
3. Saves expense of installing new cable!
4. Improves "subscribers service" because you have less cable trouble!
5. Cost of "maintenance spinning" is low!
6. Spun cable gives you a "good looking" plant!
7. Repairs on spun cable are made easy with the "Little Giant" Slack Puller and Accessory tools. Correctly designed maintenance tools do the job quickly and cheaply!

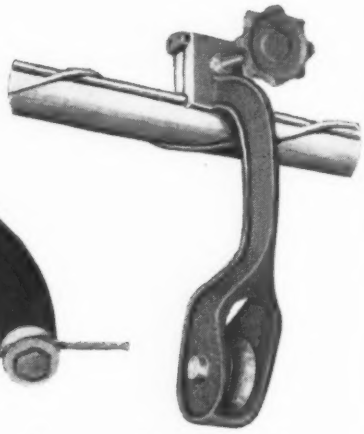
Platform Clamp
(no wrenches needed)



Molded Lead Shield gives you more protection at pole.







Little Giant Slack Puller with new ratchet handle pulls slack quickly, makes repairs easy.

Hand-Line Block
(no wrenches needed)

Your jobber will help you plan for maintenance spinning.

CABLE SPINNING EQUIPMENT COMPANY

TOPEKA, KANSAS

distance service, and since we joined with the Alaska Communications System of the United States Army in ushering in radio-telephone toll service we have encountered no untoward difficulties. We have handled calls to all parts of the United States and Canada with satisfactory results. Kodiak, too, has telephone connections with the outside, a tremendous psychological influence in diminishing the sense of being cut off from everywhere. Incidentally, there is a coincidence concerning the Sitka and Kodiak ventures. Kodiak is the oldest, and Sitka the second oldest, permanent white settlement on the entire American West Coast. Both are on north Pacific islands. Both are historically famous as Baranof's operations bases for his conquest of the vast, rich wilderness that has emerged as Alaska. And both, it seems, are on the verge of busy days. At least their citizens look to the future with optimism.

On the whole, I suppose, operating a telephone exchange in Alaska is much as it would be anywhere. There are the laughs to compensate for the headaches, there are the interesting sidelights to an absorbing business, and there is the satisfaction of giving to a community a service that is vitally important.

Unique Building Methods Used

(Continued from page 23)

to meet the special conditions of this job and was a most unusual construction project. The floor was brought to rest in its permanent position in perfect condition, a tribute to excellent engineering and planning. The underside of the second floor slab was even finished and painted so that no work that might damage the telephone equipment would need to be done after the deck was removed from the plywood "box."

Work started on the new building in March, 1948 and is expected to be complete Feb. 1, 1949. The new plant, when complete, will house more than $3,000,000 worth of equipment and employ more than 250 persons. Mr. Sasso, a practicing consulting engineer in Los Angeles, designed the all-welded steel rigid frame building. Similar construction was used in a two-story addition to a telephone company building completed in Long Beach last year.

V V

>> The first two taxis in New Zealand to be equipped with mobile radio-telephone have begun operating in Wellington.

A. N. Johns, Independent Telephone Executive, Dies

ALBERT N. JOHNS, 63, prominent telephone executive, died Nov. 14, at his home in Piedmont, Calif., after a short illness. Mr. Johns was recognized as one of the most influential figures in the Independent telephone field and was widely known in telephone circles throughout the country.

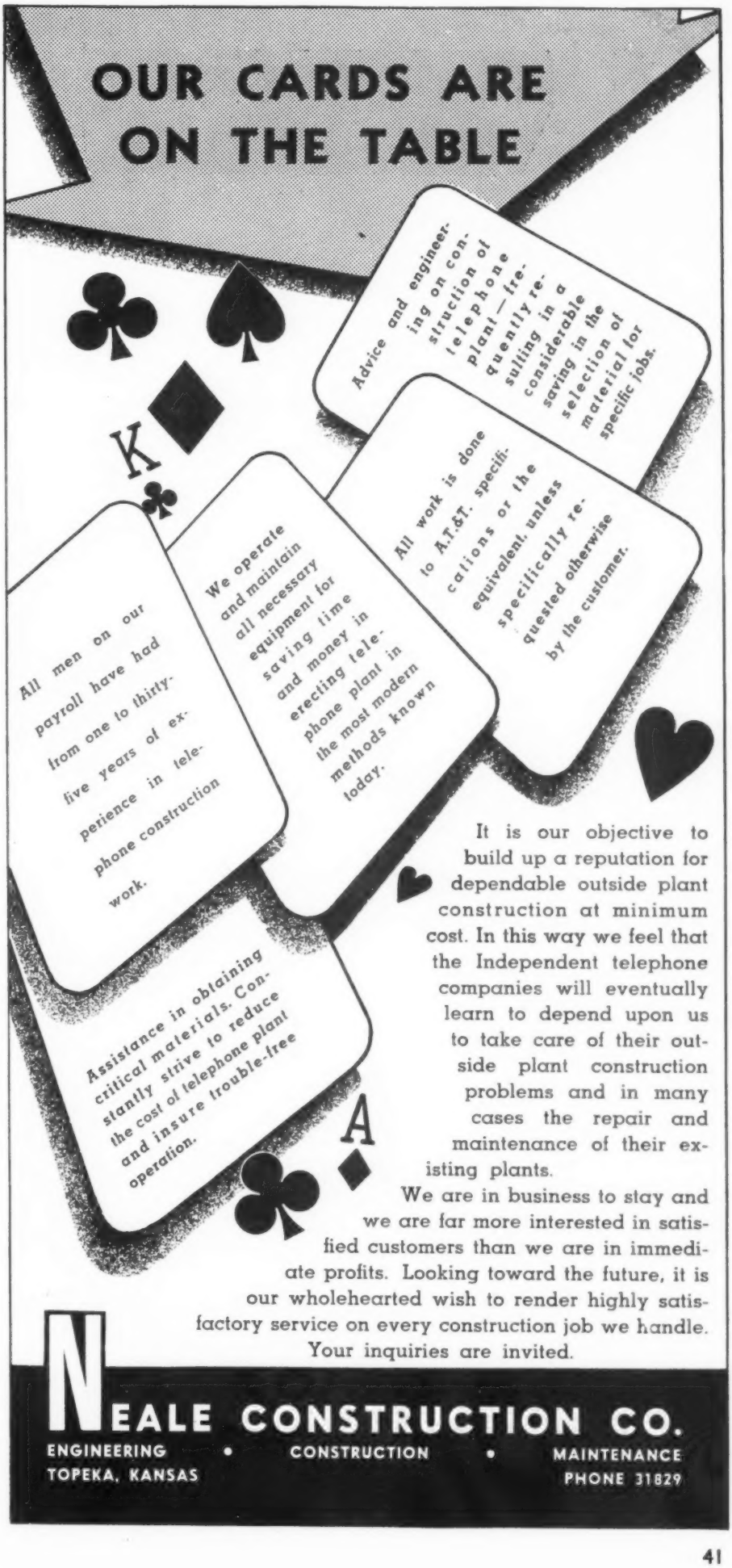
At the time of his death, he was vice president of the California Water & Telephone Co., San Francisco, the West Coast Telephone Co. of Everett, Wash., and the Southwestern States Telephone Co. of Brownwood, Tex. He was also president of the California Independent Telephone Pioneer Association, and a member of the United States Independent Telephone Association executive committee.

A. N. JOHNS

Born on May 6, 1885, in North Manchester, Ind., Mr. Johns came to California in 1904. He began his telephone career by entering the employ of the Home Telephone & Telegraph Co. of Los Angeles. From 1916 to 1922, he was associated with the Public Utilities Commission of California, then called the Railroad Commission, as an engineer specializing in telephone matters.

In 1922 he became chief engineer of the Associated Telephone Co. of Long Beach, Calif., where he redesigned and reconstructed the Long Beach and San Bernardino systems. Three years later he joined Loveland Engineers and was put in charge of the firm's telephone interests. At the time of his death, he was concerned with the operations of three large Independent telephone companies with exchanges in southern and northern California, Oregon, Washington, Texas, Louisiana, Oklahoma and Arkansas.

Mr. Johns is survived by his widow, Hazel Lynn Johns, and two sisters.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Assistance in obtaining critical materials. Constantly strive to reduce the cost of telephone plant and insure trouble-free operation.
K
A
It is our objective to build up a reputation for dependable outside plant construction at minimum cost. In this way we feel that the Independent telephone companies will eventually learn to depend upon us to take care of their outside plant construction problems and in many cases the repair and maintenance of their existing plants.
We are in business to stay and we are far more interested in satisfied customers than we are in immediate profits. Looking toward the future, it is our wholehearted wish to render highly satisfactory service on every construction job we handle. Your inquiries are invited.
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PHONE 31829

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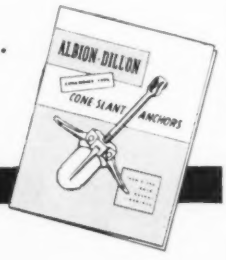
This new R.E.A.-approved, expanding type anchor has three exceptionally long blades that dig into undisturbed earth—and lock, when fully extended—to provide maximum holding power.

Three sizes—3", 4" and 6", with two variations of blade spread available in the 6" size—are ready for immediate delivery. Rods are not supplied. Order through your distributor or write direct to us for specifications and prices.

Send for New Folder...
giving illustrations, specifications, and full details



ALBION MALLEABLE IRON CO.

"One of America's Foremost Producers of Malleable Iron"

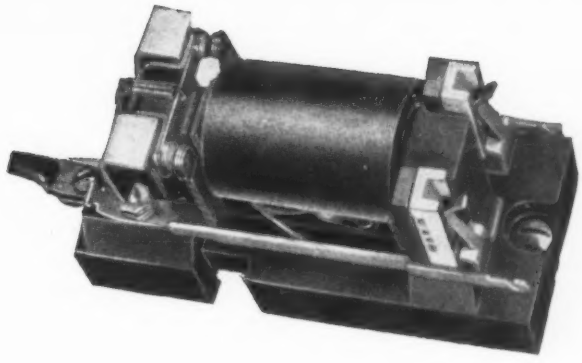
ALBION, MICHIGAN

(Left to right) F. N. BARD, president of Barco Manufacturing Co., Chicago, Ill., tells MRS. LEAH KOCH and 30-year veteran EDWARD KAUFMANN that every shingle of the "Roof Over Barco" must be sound if the company and the employes are to enjoy permanent prosperity. Each shingle on the six by eight foot replica of a building represents a management function. Occasion for this dramatic portrayal of employe-employer interests was the dinner for veteran employes celebrating the fortieth anniversary of the Barco company.

The Electric Products Co., Cleveland, Ohio, recently appointed Hubert Kaub & Co., Denver, Colo., as agents. They are direct factory representatives covering the states of Colorado, Wyoming, Utah, New Mexico and El Paso County, Texas. Principals of this concern are HUBERT KAUB (left) and his son GEORGE. They will handle The Electric Products Co. line of industrial motive-power and hand-lift truck battery chargers, electrolytic motor-generators, synchronous motors, mine locomotive battery chargers, telephone exchange battery chargers, central station stand-by charging equipment, frequency changers and industrial dynamometers.

FAHNESTOCK ELECTRIC COMPANY, INC.

Type 3-A Arrester Relay



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COLUMBUS 6, OHIO

Are you troubled with heavy induction from Rural Electrification Lines strung parallel or crossing your rural or toll lines?

While the No. 3-A Arrestor Relay does not eliminate humming and other noises, it will eliminate grounded arrestors due to this induction; it is standard equipment on all major telephone and telegraph systems.

Write for circular regarding the 3-A arrestor relay.

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★ ★

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Plant Training Supervisor, Southern Bell Telephone & Telegraph Co.

Volume I is a simple yet comprehensive treatment of the normal thought process applied to engineering problems. This volume also sets forth the principles of logical analysis in the light of emotional bias and other disruptive factors and explains how these may be applied, in writing, to engineering presentations.

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New SoundEraser Makes Plastic Discs Useable 26 Times

For the first time in the history of the plastic disc, used for dictation and business recording, sound grooves may be erased and the disc made ready for re-use in a matter of seconds. The SoundScriber Automatic SoundEraser accomplishes this in the short space of 29 seconds, according to The SoundScriber Corp., New Haven, Conn., which developed the device.

The SoundEraser is a machine about the size of a portable radio and is completely automatic. The operator places a recorded disc on a spindle, presses a button, and the rest is automatic. Electrically powered from any conventional outlet, the SoundEraser spins the recorded disc in a bath of heat and infrared rays. The centrifugal force of the spinning operation on the heated plastic accomplishes the erasure of both sides of the disc simultaneously. The fact that Vinylite plastic, used in SoundScriber discs, by nature tends to return to its original molded form upon the application of heat facilitates the erasing process, the company states.

In less than a minute the lid of the SoundEraser automatically opens and exposes the smooth, completely erased disc ready for instant re-use. Each disc can be erased 25 times or more.

New Soundscriber SoundEraser which removes grooves from plastic discs.

The development of the SoundScriber Automatic SoundEraser marks a new era in reduced operating costs for large and small companies now using SoundScriber equipment, according to the company. In an estimate issued by SoundScriber, it is stated that the cost of recording discs for the user will now be reduced 75 per cent.

It is said that in an eight-hour day, one operator with one SoundEraser device can erase 800 half-hour recording discs (representing 400 hours of dictation).

Any SoundScriber recording can still be kept as a permanent record. If only excerpts from recorded discs are desired to be kept, this may be done by copying that portion of the record onto a smaller disc. The larger disc is then erased for re-use. SoundScriber calls this process DISCopying, and it can be accomplished on its conventional dictation recorder.

ESTWING CUSHION-HANDLED TOOLS

Absorb the Shocks

Every Estwing tool handle is cushioned for comfort and greater efficiency. Built up with laminations of new, live leather over H-beam steel cores, Estwing handles absorb the shocks, permit full utilization of the finely tempered steel heads. Specify Estwing hammers and hatchets the next time you order hand tools.

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AUTOMATIC ELECTRIC SALES CORPORATION

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F. E. LEIB, who recently was elected president of the Pittsburgh Chapter of the Armed Forces Communications Association. Mr. Leib is assistant general manager of sales of the Copperweld Steel Co., Glassport, Pa.

Canadian Company Gains 10,236 Telephones in 1948

Although unable to maintain its record 1947 installation rate because of recurring shortages in all types of telephone equipment, the British Columbia Telephone Co. and its associated companies gained a total of 10,236 instruments in the first nine months of 1948 as compared with a gain of 14,802 telephones in the corresponding period of 1947.

At the same time, held applications for service rose to a new high of over 25,000 as of Oct. 1 this year, company officials report. They state that this record demand is due largely to a 27 per cent increase in population since 1941, making British Columbia the fastest-growing province in Canada.

During the nine months specified, Vancouver gained 5,227 telephones in the flat rate area, compared with 6,942 in the corresponding period of 1947.

While the installation rate is not expected to set a record in 1948, both local and long distance traffic for the first nine months, indicating new highs in usership, will be registered for the year. Already local traffic has topped the record 1947 average of 1,194,246 calls per business day throughout the system, with a new mark of 1,261,730 per business day up to Oct. 1 this year.

A total of 4,449,138 filed long distance calls for the first nine months of this year indicates that the grand total for the entire year may top the 1947 grand total of 5,322,265 filed toll calls.

Long distance calls filed in Vancouver from Jan. 1 to Oct. 1 this year totaled 1,440,000, while the total for the entire 12 months of 1947 was 1,721,724.

Operating the largest radio-telephone coastal service in Canada through its associate organization, North-west Telephone Co., the British Columbia Telephone Co. now serves a total of more than 1,200 ships and land points by this medium, a growth of nearly 300 stations this year.

The Easy Catch

A new police officer was anxious to make a record, and his chance came very soon. When he was on his beat, he telephoned to the police station and reported: "There is a man who's been robbed by some other men and I've got one of them."

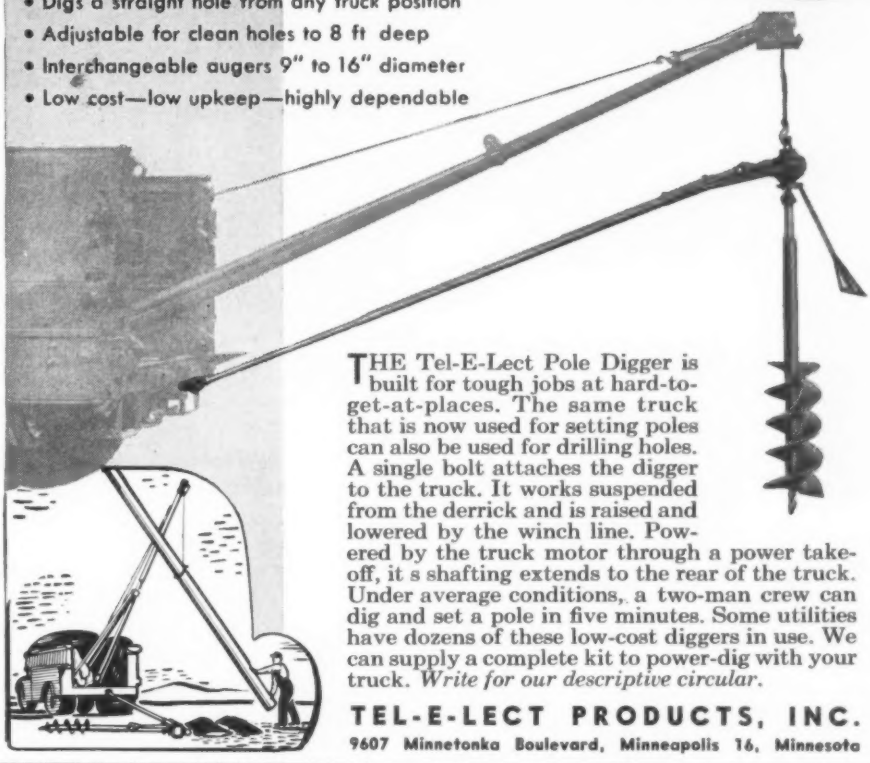
"Which one have you got?" asked the sergeant.

The reply came back: "The man who was robbed."

DIG HOLES WITH YOUR LINE TRUCK AND CREW

TEL-E-LECT POLE HOLE DIGGER

- Digs a straight hole from any truck position
- Adjustable for clean holes to 8 ft deep
- Interchangeable augers 9" to 16" diameter
- Low cost—low upkeep—highly dependable



THE Tel-E-Lect Pole Digger is built for tough jobs at hard-to-get-at-places. The same truck that is now used for setting poles can also be used for drilling holes. A single bolt attaches the digger to the truck. It works suspended from the derrick and is raised and lowered by the winch line. Powered by the truck motor through a power take-off, it s shafting extends to the rear of the truck. Under average conditions, a two-man crew can dig and set a pole in five minutes. Some utilities have dozens of these low-cost diggers in use. We can supply a complete kit to power-dig with your truck. *Write for our descriptive circular.*

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ALPHADUCT WIRES
FOR *all* TELEPHONE REQUIREMENTS

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Neoprene Jacketed Drop and Bridle Wire
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FAIRFIELD, IOWA

The Four Wheel Drive Auto Co. has announced a number of changes of personnel in its engineering division. New appointees shown above are, left to right: G. D. SIMONDS, chief engineer; B. G. DONLEY, manager of development engineering; H. B. DODGE, technical advisor to management; D. B. OLEN, director of engineering and JAMES SORENSON, metallurgist and research engineer.

Recorder, Warning Device On Original Dictaphone

One of the more interesting exhibits of the 40th National Business Show in New York City was Dictaphone Corp.'s first dictating machine with a telephone recorder and its new "beep . . . beep" signal.

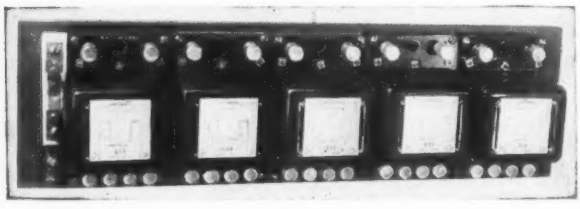
Ordered by the Federal Communications Commission as a requisite for legalizing the use of telephone recorders, the "beep" is heard every 15 seconds during a recorded telephone conversation of two or more people.

The high frequency tone of the signal is clear and sharp yet adjusted so that it does not interfere with the clarity of the conversation, according to the many visitors to the business show who had a personal demonstration of the recorder.

The combination "Time-Master" dictating machine and telephone recorder on exhibit at the show is the first produced at Dictaphone's Bridgeport, Conn., plant. Production schedules, according to President Merrill B. Sands, have been stepped up to the point that deliveries now can be made three weeks after an order has been received.

>> It has been said: "We can't all do the best—but we can do the best we can."

THE PROBLEM IS SOLVED
with Dan-Mac KICK COILS



Many operating companies hesitate to install more magneto telephones because a conversion is planned. The answer is the use of Dan-Mac Kick Coils with C. B. telephones providing C. B. service through a magneto switchboard. Many independent operating companies are happy with this solution to their problem.

Strips of 5, mounted and fused ..... $23.50 each
Single Coils ..... 4.00 each

Immediate Delivery

SINCE 1926

TELEPHONE REPAIR & SUPPLY COMPANY

DAN'L H. McNULTY, President and Manager

1760 Lunt Avenue Chicago 26, Illinois

Commission Summary

(Continued from page 32)

transfer franchise of Leoti (Kan.) Telephone Co. and to cease operating at Leoti and Tribune.

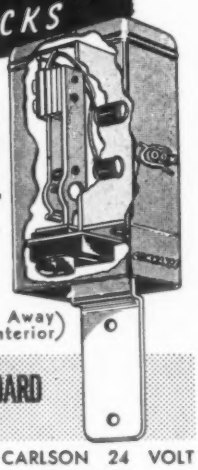
Dec. 7: Hearings on applications of South Dickinson Mutual Telephone Co., Navarre, Willis (Kan.) Mutual Telephone Co., and Farmers District Mutual Telephone Co., Alta Vista, for authority to change rates.

Minnesota Railroad & Warehouse Commission

Nov. 22: Hearing on application of North Star Telephone Co., Mountain Lake, for authority to change rates at its Butterfield, Comfrey, and Odin exchanges.

Nov. 23: Hearing on application of Valley Telephone Co., Browns Valley, for authority to change rates.

COMMANDO
WEATHERPROOF
POLE JACKS



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Above with capsule trans. and receiver.$6.00 ea.
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Kellogg No. 99A Ind. coil, 7 point conn., rack mounted on top.....$ .75 ea.
Kellogg 103A C.B. Ind. coil, three winding for triad circuit, 9 point conn., rack mounted on top.....$1.00 ea.
Kellogg No. 22 trans., rebuilt and refinished. $1.35 ea.
W.E. No. 229 trans., rebuilt and refinished. $1.35 ea.
Kellogg or S.C. 1000 ohm, St. line ringers, complete with gongs and mtg. screws.....$1.65 ea.
W.E., Kellogg or S.C. Mouthpieces, New. $ .10 ea.
Kellogg all-steel enclosed gong, No. 602, signal set, with either st. line or harm. ringer, coil, cond. .....$3.50 ea.

We also stock many other items. Write your needs. Your transmitter completely rebuilt and refinished for only 75c. Guaranteed.

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1,000 10"x¾" Galv. Hubeye Bolts Angle.40c ea.
24 [illegible]2 Bd. W.E. Protected Terminals .....$70.00 ea.
22 [illegible] Pr. W.E. Protected Terminals.$35.00 ea.
10,000 Cadmium Hvy. ⅜" Wire Rope Clips .....12c ea.
5,000 Galv. Lift Plates (H) Graybar 8891.15c ea.
4,000 Galv. Lift Plates—J-7891 .....12c ea.
500,000 [illegible] 17/2 Telex Drop Wire....$12.50 per M
100,000 [illegible] 1-3-5-10-15-20-30-40-50-60 Pr. Tel. Wire

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Los Angeles 23, Calif.

Nov. 24: Hearing on application of Washington County Rural Telephone Co., Hastings, for authority to change rates at its Cottage Grove exchange.

Nov. 29: Hearing on application of Freeport (Minn.) Telephone Co. for authority to change rates.

Nov. 29: Hearing on application of Sherburne County Rural Telephone Co. for authority to change rates at its Big Lake, Becker, and Zimmerman exchanges.

New York Public Service Commission

Nov. 16: Hearings on applications of Copake (N.Y.) Telephone Co. and A. M. Johnson Telephone Corp., Hillsdale, for increased rates.

Nov. 18: Hearing on joint petition of Chatham (N. Y.) Telephone Corp. and Columbia & Rensselaer Telephone & Telegraph Co., West Lebanon, for authority to: (1) issue notes; (2) consolidate. Hearing on petition of former company to issue capital stock.

Oklahoma Corporation Commission

Nov. 23: Hearing on application of Goltry (Okla.) Telephone Co. for authority to increase rural rates.

Nov. 29: Continued hearing on application of Mounds (Okla.) Telephone Co. for increased rates at its Mounds and Kellyville exchanges.

Dec. 2: Hearing on application to declare area between Bryant and Henryetta as open territory.

Dec. 21: Continued hearing on application of Lindsay residents to require the Southwestern States Telephone Co., Brownwood, Tex., to give better service and to decrease rates temporarily.

Dec. 29 and 30: Hearings on evidence contesting application of Southwestern Bell Telephone Co. for increased intrastate exchange rates in Oklahoma.

Jan. 18: Continued hearing on application of Southwestern Bell Telephone Co., Southwestern Associated Telephone Co., Lubbock, Tex., Southwestern States Telephone Co., Brownwood, Tex., and Oklahoma Telephone Co., Broken Arrow, for continuance of rules similar to those of expired federal regulation U-2 governing order of service installation.

Pennsylvania Public Utility Commission

Nov. 18: Hearings on applications of Lycoming Telephone Co., Trout Run, for permission to: (1) purchase property and assets of Kutztown Telephone & Telegraph Co., Stines Corner; (2) amend charter; (3) furnish service in several townships in Lehigh and Berks Counties; (4) issue $10,000 par value of common stock.

Wisconsin Public Service Commission

Nov. 16: Hearing on complaint of Mrs. Glen Wensel vs. Urban Telephone Co., Clintonville, and Ben Marasch Telephone Co.

Nov. 16: Hearing on application of Gilmanton-Dover Farmers Telephone Co., Gilmanton, for authority to increase rates.

Nov. 18: Hearings on applications of Wisconsin Telephone Co. and Footville (Wis.) Telephone Co. for authority to increase rates.

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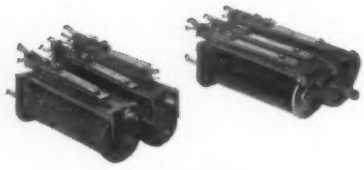

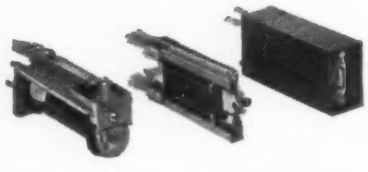

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